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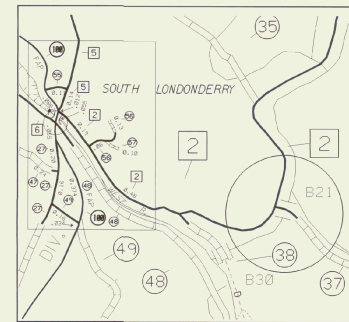
LIST OF STANDARDS

B-5	06/01/94
B-71	03/10/95
E-100	08/08/95
E-101	08/08/95
E-102	08/08/95
E-107	08/08/95
E-107a	08/08/95
E-121	08/08/95
E-141	09/20/95
E-143	09/20/95
E-141	08/18/95
E-143	09/20/95
E-150	08/08/95
E-160	08/18/95
G-1	06/01/94
G-1d	06/01/94
SB-R6-82	01/06/95
T-1	06/01/94
T-2	06/01/94

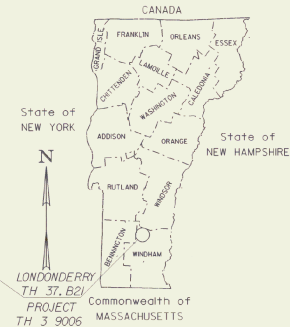
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF LONDONDERRY
COUNTY OF WINDHAM



LOCATION MAP



ROUTE NO : TH 37 CLASS 3 BRIDGE NO : 21

PROJECT LOCATION : BEGINNING AT THE INTERSECTION OF TH 2 AND TH 37 AND PROCEEDING EASTERLY ALONG TH 37 FOR 0.10 MILE.

PROJECT DESCRIPTION : CONSTRUCT NEW STRUCTURE ALONG WITH RELATED ROADWAY APPROACH AND CHANNEL WORK.

LENGTH OF STRUCTURE : 27.00 FEET.
LENGTH OF PARTICIPATION ROADWAY : 249.00 FEET.
LENGTH OF NON-PARTICIPATION ROADWAY : 0.00 FEET.
LENGTH OF PROJECT : 276.00 FEET.

RECORD PLANS

CONTRACTOR: Miller Construction - Windsor VT
RESIDENT ENGINEER: M. Mackintosh
CONSTRUCTION BEGAN: JULY 8, 1997
CONSTRUCTION COMPLETE: JUNE 8, 1998

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

BY [Signature] RESIDENT ENGINEER
DATE Nov. 27, 2000

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

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

DATUM	
VERTICAL	U.S. ARMY CORP OF ENGINEERS
HORIZONTAL	N/A

SCALE 1" = 60'-0"
50 0 50

REVISED	DATE 11/30/97
REVISED	DATE 1/28/98
APPROVED <u>[Signature]</u> DATE <u>11/27/00</u> DIRECTOR OF ENGINEERING	

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHARGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF CONSTRUCTION AND MAINTENANCE. 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 5, 2000 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

PROJECT LONDONDERRY
PROJECT NO. TH 3 3006
SHEET 1 OF 33 SHEETS

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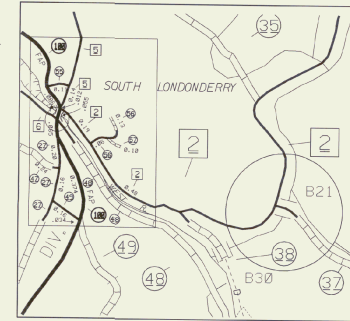
LIST OF STANDARDS

- | | |
|----------|----------|
| B-5 | 06/01/94 |
| B-71 | 03/10/95 |
| E-100 | 08/08/95 |
| E-101 | 08/08/95 |
| E-102 | 08/08/95 |
| E-107 | 08/08/95 |
| E-107a | 08/08/95 |
| E-121 | 08/08/95 |
| E-141 | 09/20/95 |
| E-143 | 09/20/95 |
| E-141 | 08/18/95 |
| E-143 | 09/20/95 |
| E-150 | 08/08/95 |
| E-160 | 08/18/95 |
| G-1 | 06/01/94 |
| G-1d | 06/01/94 |
| SB-R6-82 | 01/06/95 |
| T-1 | 06/01/94 |
| T-2 | 06/01/94 |

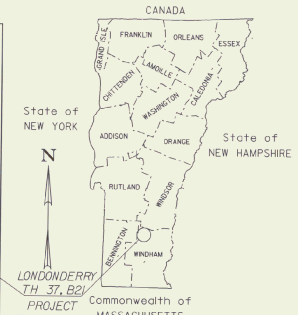
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF LONDONDERRY
COUNTY OF WINDHAM



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LENGTH OF PROJECT : -----276.00 FEET.

RECORD PLANS

CONTRACTOR: MILLER CONSTRUCTION, WINDSOR, VT

RESIDENT ENGINEER: M. MACKINTOSH

CONSTRUCTION BEGAN: JULY 8, 1997

CONSTRUCTION COMPLETED: JUNE 8, 1998

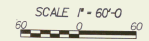
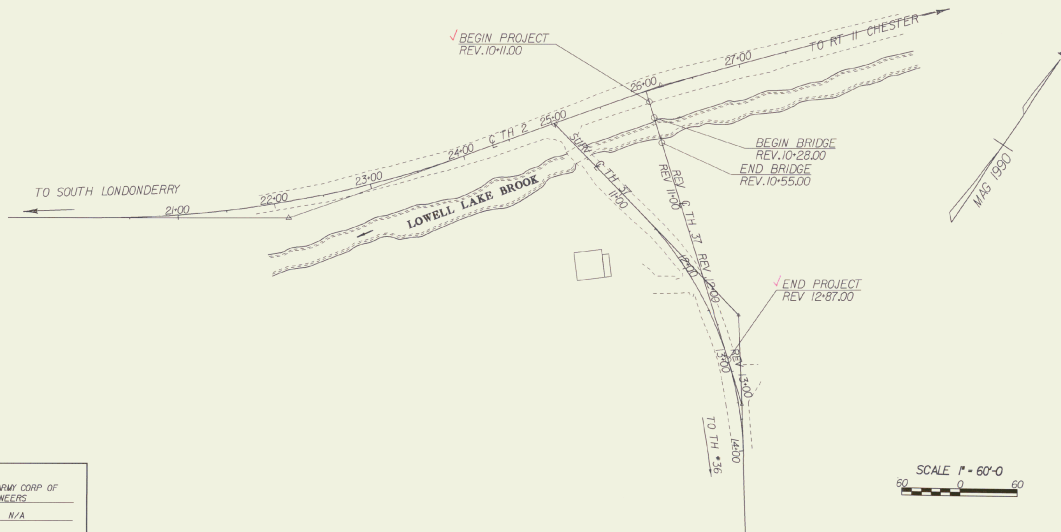
RECORD PLANS BY: CONSTRUCTION FINALS

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

BY: *[Signature]*, RESIDENT ENGINEER

DATE: Nov. 29, 2000

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

- COUNTY LINE
- TOWN LINE
- LIMITS OF ACCESS
- POINT OF ACCESS
- FENCE LINE
- STONE WALL
- TRAVELED WAY
- 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

DATUM

VERTICAL	U.S. ARMY CORP OF ENGINEERS
HORIZONTAL	N/A

REVISED	DATE
REVISED	DATE
APPROVED _____ DATE _____	
DIRECTOR OF ENGINEERING	
PROJECT LONDONDERRY PROJECT NO. TH 3 9006	
SHEET 1 OF 33 SHEETS	

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHARGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF CONSTRUCTION AND MAINTENANCE. 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.

EARTHWORK

BRIDGE QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION

GRADES		ELEVATION		CORR. V.C.	DIST.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.
% VERT. GDE. CUR.	STATION	ON TAN.	ON V.C.										
EARTHWORK SUMMARY													
	EMBANKMENT REQUIRED:					120	CY						
	FILL FACTOR:					18	CY						
	SUBTOTAL:					138	CY						
	ROUNDING:					2	CY						
	TOTAL:					140	CY						
	FILL AVAILABLE:												
	COMMON EXCAVATION:					1360	x 1.00 = 1360	CY					
	UNCL. CHAN. EXC.:					300	x 0.60 = 180	CY					
	TRENCH EXC. OF EARTH:					10	x 0.60 = 6	CY					
	COFFERDAMS:					480	x 0.50 = 240	CY					
	SUBTOTAL:					1834	CY						
	ROUNDING:					6	CY						
	TOTAL:					1840	CY						
	FILL REQUIRED:					1840	CY						
	FILL AVAILABLE:					140	CY						
						1700	CY WASTE						
TEMPORARY EROSION CONTROL ITEMS (INCLUDED UNDER EROSION CONTROL)													
	ITEM					UNIT							QTY
	TRENCH EXCAVATION OF EARTH					CY							10
	SUBBASE OF GRAVEL					CY							30
	STONE FILL, TYPE I					CY							10
	GEOTEXTILE FOR SILT FENCE					SY							40
	HAY BALES FOR EROSION CONTROL					EA							10
	SEED - WINTER RYE					LB							10
	EROSION MATTING					SY							10
	50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) AND CEREAL (WINTER) RYE (SECALE CEREALE)												

ITEM NO.	ITEM	UNIT	QUANTITY BREAKDOWN										TOTAL	FINAL		
			STRUCTURE	No. 1	No. 2							CONTROL				
201.10	CLEARING AND GRUBBING (INCLUDING REMOVAL OF INDIVIDUAL TREES AND STUMPS)	LS		1											1	
203.15	COMMON EXCAVATION	CY		1360											1360	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY								300					300	
203.28	EXCAVATION OF SURFACES AND PAVEMENT	CY		85											85	
203.31	SAND BORROW	CY		220											220	
203.32	GRANULAR BORROW	CY		300											300	
204.20	TRENCH EXCAVATION OF EARTH	CY										10			10	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY						200		180					380	
204.40	COFFERDAM @ REV. STA. 10+28	LS						1							1	
204.40	COFFERDAM @ REV. STA. 10+55	LS								1					1	
301.15	SUBBASE OF GRAVEL	CY		840									30		870	
401.10	AGGREGATE SURFACE COURSE	CY		65											65	
404.65	EMULSIFIED ASPHALT	CWT		1.5											1.5	
406.25	BITUMINOUS CONCRETE PAVEMENT	TON		208											220	
501.25	CONCRETE, CLASS B	CY						45		70			60		175	
501.30	CONCRETE, CLASS C	CY											5		5	
501.60	SILICA-FUME CONCRETE	CY						6							6	
507.15	REINFORCING STEEL	LB								10084			9424		19508	
507.16	DRILLING AND GROUTING DOWELS	LF								42			33		75	
507.17	EPOXY COATED REINFORCING STEEL	LB						7180		140			100		7420	
514.10	WATER REPELLENT	GAL						3		4			4		11	
519.20	SHEET MEMBRANE WATERPROOFING	SY						70							70	
525.10	REMOVAL OF EXISTING RAILING	LF								96					96	
525.41	BRIDGE RAILING - HDSB/FASCIA MOUNTED	LF						62.5							62.5	
527.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	LS						1							1	
529.10	REMOVAL OF BRIDGE PAVEMENT	SY								35					35	
529.15	REMOVAL OF STRUCTURE	EA								1					1	
	** BEGIN PIPE OPTIONS **															
601.0025	24" CSP .064 (2-2/3 X 1/2)	LF													62	
601.0225	24" CAAP .060 (2-2/3 X 1/2)	LF													62	
601.0920	24" CPEP	LF													62	
	** END PIPE OPTIONS **															
608.10	BULLDOZER RENTAL, TYPE I (N. A. B. I.)	HR													1	
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR													2	
609.10	DUST CONTROL WITH WATER	MGAL								50					50	
613.10	STONE FILL, TYPE I	CY											3		3	
613.11	STONE FILL, TYPE II	CY													230	
621.21	HEAVY DUTY STEEL BEAM GUARD RAIL	LF													443	
621.60	ANCHOR FOR STEEL BEAM GUARD RAIL	EA													4	
621.90	TEMPORARY TRAFFIC BARRIER	LF													150	

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EARTHWORK

BRIDGE QUANTITY SHEET

REVIS^E GWC 1/28/97
 REVIS^E GWC 1/31/97

STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 STRUCTURES DIVISION

GRADES														QUANTITY BREAKDOWN														
% GDE	VERT CUR	STATION	ELEVATION ON TAN.	ON V.C.	CORR. V.C.	DIST.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	ITEM NO.	ITEM	UNIT	ROADWAY	SUPER- STRUCTURE	ABUTMENT NO. 1	ABUTMENT NO. 2	CHANNEL	EROSION CONTROL	TOTAL	FINAL			
															630.10	UNIFORMED OFFICERS	HR	24							24			
															630.15	FLAGGERS	HR	250								250		
															631.10	FIELD OFFICE - ENGINEER	LS	1								1		
															631.16	TESTING EQUIPMENT - CONCRETE	LS	1								1		
															631.17	TESTING EQUIPMENT - BITUMINOUS	LS	1								1		
															631.25	FIELD OFFICE - TELEPHONE (N. A. B. I.)	LS	1								1		
															635.10	MOBILIZATION	LS	1									1	
															646.20	4" WHITE LINE	LF	680									680	
															646.21	4" YELLOW LINE	LF	652									652	
															646.26	24" STOP BAR	LF	30									30	
															646.73	LINE STRIPING TARGETS	EA	15									15	
															649.31	GEOTEXTILE UNDER STONE FILL	SY	340					610			950		
															649.51	GEOTEXTILE FOR SILT FENCE	SY											
															651.15	SEED	LB							40		40		
															651.17	SEED - WINTER RYE	LB							10		10		
															651.18	FERTILIZER	LB							10		10		
															651.20	AGRICULTURAL LIMESTONE	TON							200		200		
															651.25	HAY MULCH	TON							1		1		
															651.26	HAY BALES FOR EROSION CONTROL	EA							1		1		
															651.35	TOPSOIL	CY	110						10		120		
															651.40	GRUBBING MATERIAL	SY							290		290		
															654.10	EROSION MATTING	SY							10		10		
															675.20	TRAFFIC SIGNS, TYPE A	SF	14										
															675.30	FLANGED CHANNEL SIGN POST	LB	108										
															675.50	REMOVING SIGNS	EA	4									4	
															675.60	ERECTING SALVAGED SIGNS	EA	2									2	

ARCHIVED
ON CADD

BRIDGE AT STATION REV. STA. 10+41.5
 LOCATION T. H. 37 OVER THE LOWELL LAKE BROOK

PREPARED BY: G. SOLEGRUVE
 CHECKED BY: G. ROY
 SUPERVISOR: J. H. WEAVER

PROJECT: LONDONDERRY PROJECT NO.: TH3 9006
 BR OF SHEET NO.: 4 OF 33

GUARD RAIL - HEAVY DUTY STEEL BEAM

TH 37 REV 10-57 TO 11-44 RT.
 TH 37 REV 10-57 TO 11-38 LT.
 ML TH 2 STA 24-56 TO 25-62 RT.
 ML TH 2 STA 26-17 TO 27-12 RT.

BRIDGE RAILING - HEAVY DUTY STEEL BEAM/FASCIA MOUNTED

TH 37 REV 10-27 TO 10-57 RT
 TH 37 REV 10-27 TO 10-57 LT.

REMOVE SIGNS

*STOP SIGN @ ~ SL TH 37 STA 10-23 LT.
 *TH L37 SIGN @ ~ SL TH 37 STA 10-13 RT.
 *BRIDGE POSTED ... SIGN @ ~ SL TH 37 STA 10-29 RT.
 *BRIDGE POSTED ... SIGN @ ~ SL TH 37 STA 10-52 LT.

ERECT SALVAGED SIGNS

*STOP SIGN @ TH 37 REV 10-21, 28' LT.
 *TH L37 SIGN @ TH 37 REV 10-21, 35' RT.

INSTALL SIGNS

*STOP AHEAD SIGN @ TH 37 REV 12-90, 17' LT.
 *LEGAL LOAD LIMIT SIGN @ TH 37 REV 10-61, 17' RT.

PAINT LINE MARKERS

30' STOP LINE @ TH 37 REV 10-17' LT.

ANCHOR FOR STEEL BEAM RAIL

TH 37 REV 11-32 RT.
 TH 37 REV 11-25 LT.
 ML TH 2 STA 24-68 RT.
 ML TH 2 STA 27-00 RT.

CULVERT

TH 37 REV 12-06 Δ 45'-14'-23'

CONSTRUCT DRAIN

TH 37 REV 11-96 RT.

U.S. ARMY CORP
 OF ENGINEERS
 BM * 150 1978
 25-47 35' LT.
 EL. 1036.42

BEGIN R.O.W. PROJECT
 REV. 10+24.75 66' LT

⊗ REMOVAL OF INDIVIDUAL TREES AND STUMPS TO BE INCLUDED WITH ITEM 201.11, "CLEARING AND GRUBBING" FOR THIS PROJECT.

NOTE
 THIS SHEET IS FOR R.O.W. LIMIT DETAILS ONLY. REFER TO THE REMAINING PLAN SHEETS FOR ALL OTHER CONTRACT DETAILS.

* SET THESE SIGNS AND POSTS ASIDE FOR REINSTALLATION.
 ** THE CONTRACTOR IS NOT PERMITTED TO DISTURB THE AREA NORTHEAST OF THIS CONSTRUCTION OPERATIONS LIMIT. THIS LIMIT IS DEFINED AS BEING 10 FEET NORTHEAST OF THE CUT OR FILL LINE AS SHOWN.

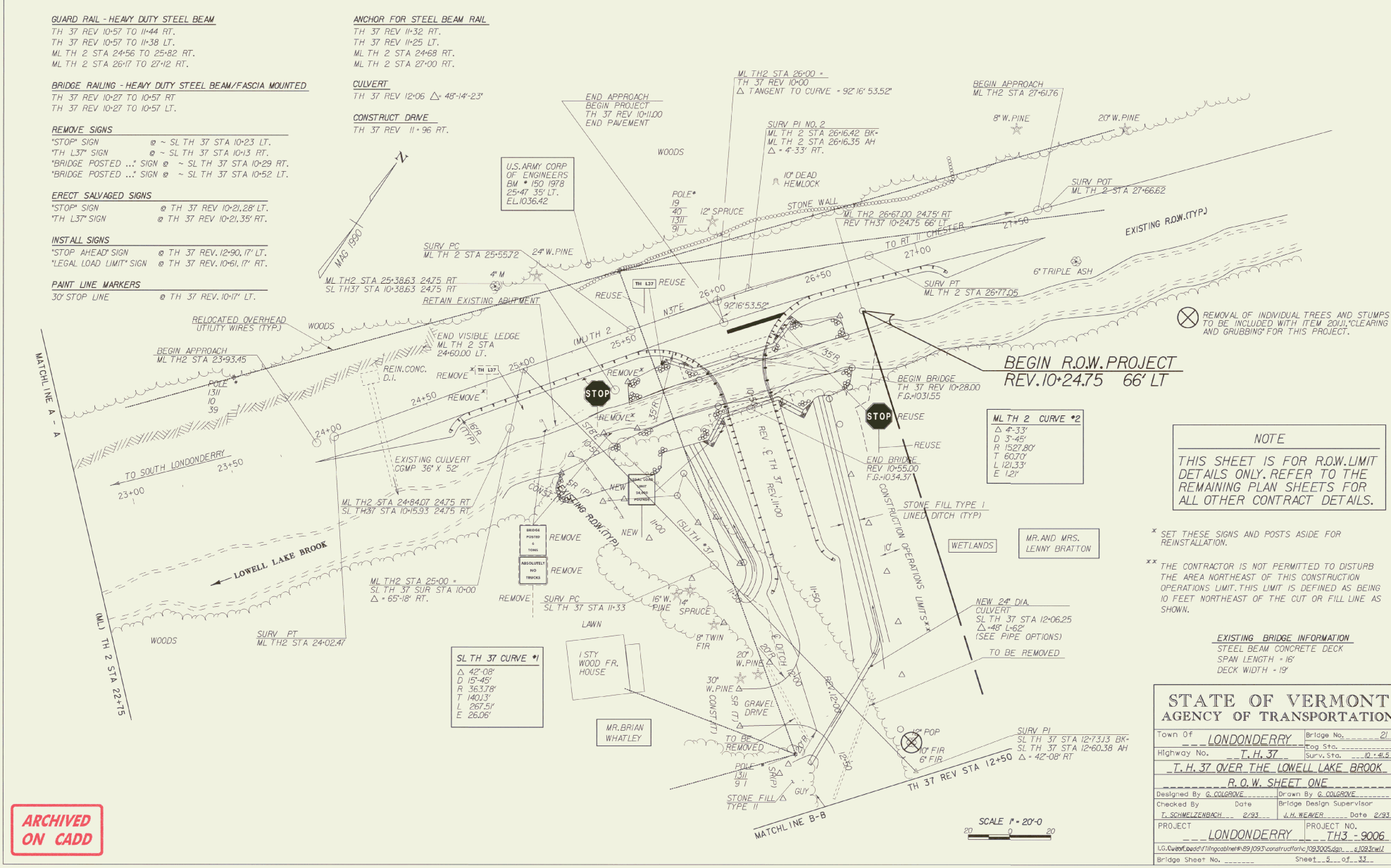
EXISTING BRIDGE INFORMATION
 STEEL BEAM CONCRETE DECK
 SPAN LENGTH - 16'
 DECK WIDTH - 19'

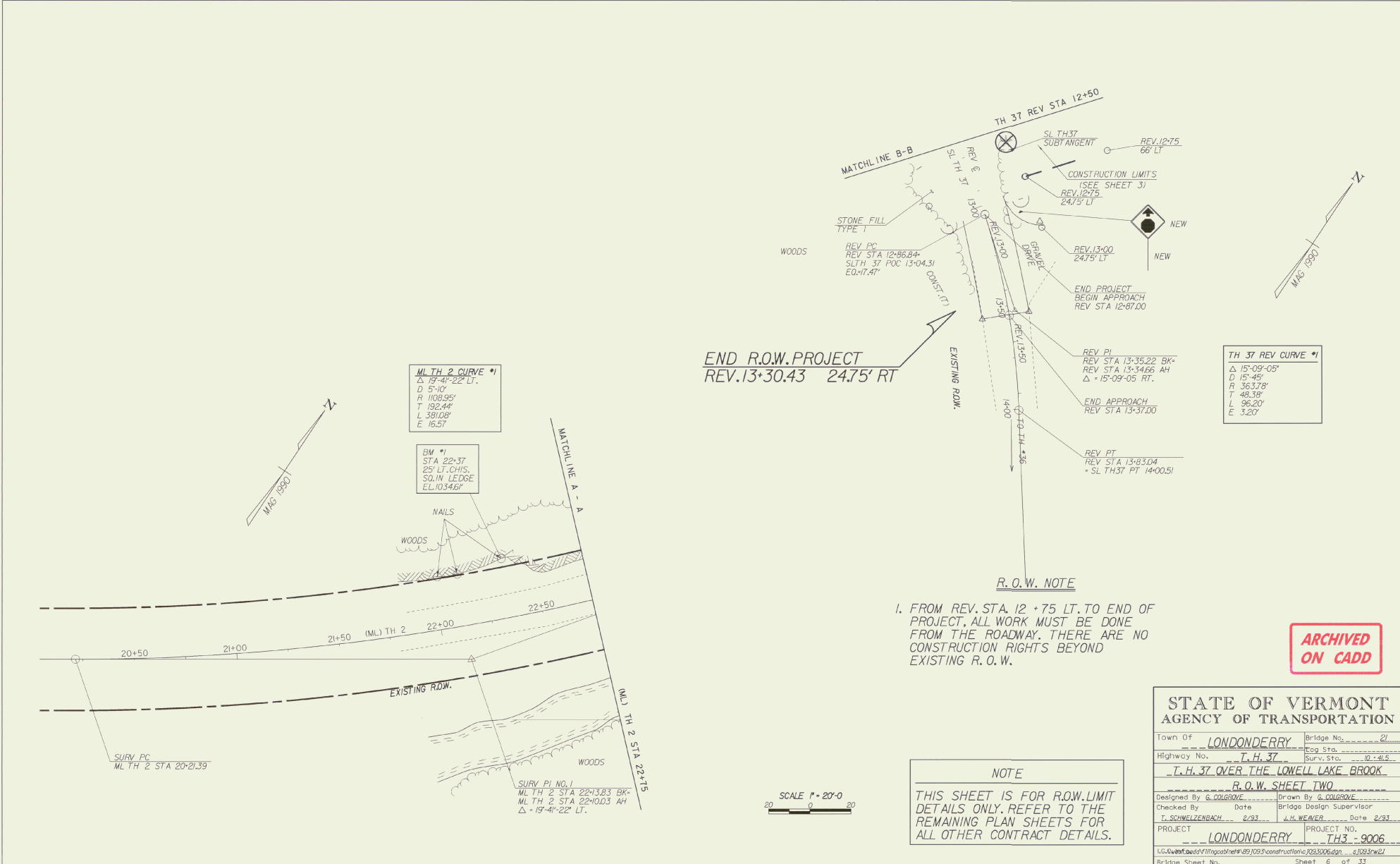
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	LONDONDERRY	Bridge No.	21
Highway No.	T. H. 37	Log Sta.	10+4.6
T. H. 37 OVER THE LOWELL LAKE BROOK			
R.O.W. SHEET ONE			
Designed By	G. COLGROVE	Drawn By	G. COLGROVE
Checked By	Date	Bridge Design Supervisor	Date
T. SCHMELZENBACH	2/93	J. H. NEWMER	2/93
PROJECT	PROJECT NO.		
	LONDONDERRY		TH3 - 9006
I.G. Colgrove, Inc. 111 Maple Street #89, 1093 Construction, 1093005.dwg		1093.rwl	
Bridge Sheet No.			Sheet 1 of 33

**ARCHIVED
 ON CADD**

SCALE 1" = 20'-0"
 20 0 20





ML TH 2 CURVE *
 Δ 19°41'22" LT.
 D 5'-10"
 R 1108.95'
 T 192.44'
 L 381.08'
 E 16.57'

BM *
 STA 22+37
 25' LT. CHIS.
 SQ. IN LEDGE
 EL. 1034.66'

TH 37 REV CURVE *
 Δ 15°09'05"
 D 15'-45"
 R 363.78'
 T 48.38'
 L 96.20'
 E 3.20'

END R.O.W. PROJECT
 REV. 13+30.43 247.5' RT

R. O. W. NOTE

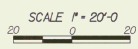
1. FROM REV. STA. 12 + 75 LT. TO END OF PROJECT, ALL WORK MUST BE DONE FROM THE ROADWAY. THERE ARE NO CONSTRUCTION RIGHTS BEYOND EXISTING R. O. W.

NOTE

THIS SHEET IS FOR R.O.W. LIMIT DETAILS ONLY. REFER TO THE REMAINING PLAN SHEETS FOR ALL OTHER CONTRACT DETAILS.

ARCHIVED ON CADD

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. <u>0+41.5</u>
<u>T. H. 37 OVER THE LOWELL LAKE BROOK</u>	
<u>R. O. W. SHEET TWO</u>	
Designed By <u>G. COLGROVE</u>	Drawn By <u>G. COLGROVE</u>
Checked By <u>T. SCHMELZENBACH</u>	Bridge Design Supervisor <u>J. H. WEAVER</u>
Date <u>2/93</u>	Date <u>2/93</u>
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
I:\6\wms\ed\11\top\asheet\93\103\construction\103\9006.dgn _e1033rsw.dwg	
Bridge Sheet No. <u>6</u>	Sheet <u>6</u> of <u>33</u>



GENERAL NOTES

General Items

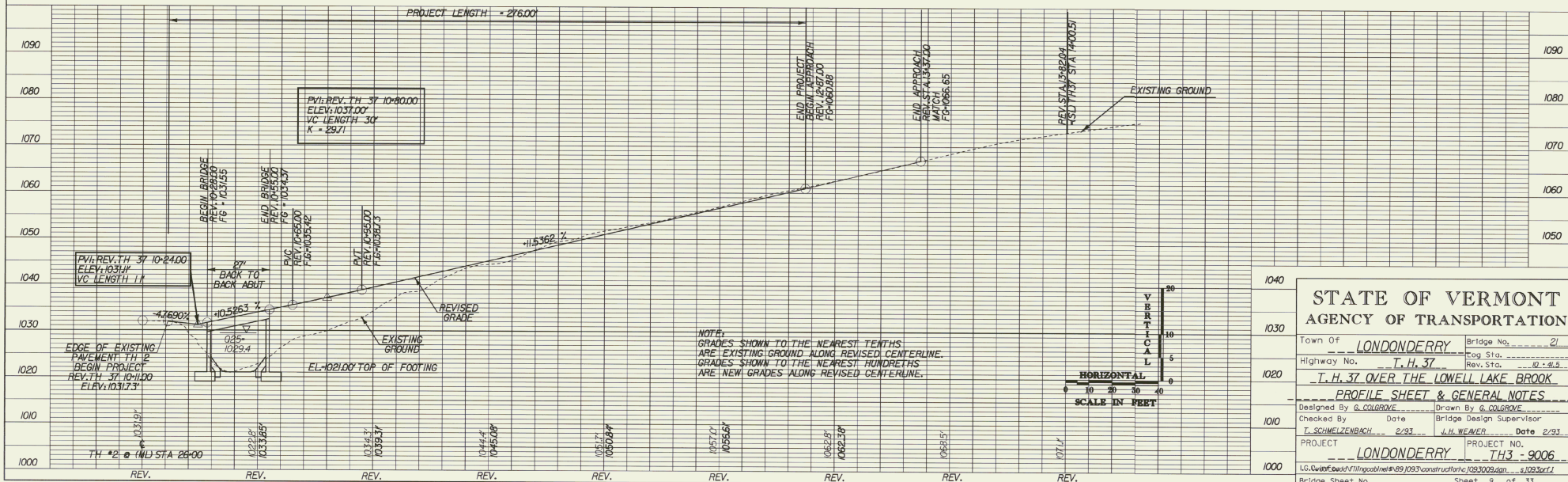
1. All materials and construction shall conform to the State of Vermont, "Agency of Transportation Standard Specifications for Construction," dated 1990, and its latest revision. Subsequent notes will refer to sections of this publication. The materials and construction shall also conform to the "AASHTO Standard Specifications for Highway Bridges," dated 1992, and its latest revision.
2. All work must conform to the United States Army Corp. of Engineers permit issued February 2, 1996.

In Stream and Erosion Control Items

3. The Contractor may work in the stream from June 1 to October 1. The Contractor must have written approval from the Vermont Agency of Natural Resources to work in the stream from October 2 to May 31.
4. The Agency prohibits the Contractor from using the wetlands east of REV TH 37 for staging.
5. The Contractor will maintain the State Water Quality Standards at all times. The Contractor's erosion control and/or water management plan shall be subjected to a review by the Stream Alteration Engineer. The Contractor must also obtain the 1272 Order before receiving the notice to proceed from the Agency's Construction Division.
6. The Contractor shall prevent siltation or pollution into the Lowell Lake Brook according to the Agency's Specifications section 105 or as directed by the Engineer. The Contractor must take special precautions in this matter so as to provide protection for the endangered species, Eastern pearl shell mussels, that exist in close proximity down stream.
7. All in stream channel work will take place in a dry channel. See stream alteration permit for further information. Cofferdams have been selected as the appropriate bid item for this work.
8. The Contractor shall prevent erosion behind the wingwalls with item 613.10 "Stone Fill Type 1" as shown on the plans or as directed by the Engineer.

SEE SHEET 10 FOR
MORE GENERAL NOTES.

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STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
Town Of	LONDONDERRY	Bridge No.	21
Highway No.	T. H. 37	Log Sta.	62+4.5
1020	T. H. 37 OVER THE LOWELL LAKE BROOK		
PROFILE SHEET & GENERAL NOTES			
Designed By	G. COLGROVE	Drawn By	G. COLGROVE
Checked By	T. SCHMELZENBACH	Date	2/93
PROJECT	LONDONDERRY	Bridge Design Supervisor	J. H. NEWER
1010	PROJECT NO. TH3 - 9006		
1000	I.G. Drawn by G. Colgrove on 1/10/93, net # 89 1093 construction, 103, 9006.dwg, 2/29/93		
Bridge Sheet No.			Sheet 2 of 33

SOIL CLASSIFICATION

- AASHTO
 A1 Gravel and Sand
 A3 Fine Sand
 A2 Silty or Clayey Gravel and Sand
 A4 Silty Soil - Low Compressibility
 A5 Silty Soil - Highly Compressible
 A6 Clayey Soil - Low Compressibility
 A7 Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

- ▼ Water Elevation
- ⊙ Standard Penetration Boring
- ⊕ Auger Boring
- ⊙ Rod Sounding
- S Sample
- N Standard Penetration Test
- Standard Penetration Test Blow Count Per Foot For:
 - 2" O. D. Sampler
 - 1 3/8" I. D. Sampler
 - Hammer Weight Of 140 Lbs.
 - Hammer Fall Of 30"
- US Undisturbed Soil Sample
- B Blast
- DC Diamond Core
- Mud Drill
- WA Wash Ahead
- HSA Hollow Stem Auger
- AX Core Size 1 1/8"
- EX Core Size 1 5/8"
- NX Core Size 2 1/8"
- M Double Tube Core Barrel Used
- LL Liquid Limit
- PL Plastic Limit
- PI Plasticity Index
- NP Non Plastic
- D Moisture Content (Dry Wgt. Basis)
- D Dry
- M Moist
- MTW Moist To Wet
- W Wet
- Sat Saturated
- Bo Boulder
- Gr Gravel
- Sa Sand
- Sl Silt
- Cl Clay
- HP Hardpan
- Le Ledge
- NLTD No Ledge To Depth
- CNPF Can Not Penetrate Further
- TLOB To Ledge Or Boulder
- NR No Recovery
- Rec. Recovery
- ZRec. Percent Recovery
- ROD Rock Quality Designation
- CBR California Bearing Ratio
- < Less Than
- > Greater Than
- R Refusal (N > 100)

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lght	Light	mtc	Multicolored
or	Orange		

BORING NO. B-1

DEPTH (FEET)	LOGS ON CASING	STANDARD PENETRATION TEST NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1023.55					
TOP OF FTG. ABUT. NO. 1 ELEV. = 1021.0'					Top of bedrock @ 2.5'
10					Run 11BMD 2.5 - 7.5 Rec. 4.5
					Run 21BMD 7.5 - 12.0 Rec. 2.0
					See Geologist's Report
20					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard, slightly weathered on fracture planes and competent.
30					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard, slightly weathered on fracture planes and competent.
					Run RECOV. ROD 1 90% 22% 2 44% 0%

BORING NO. B-2

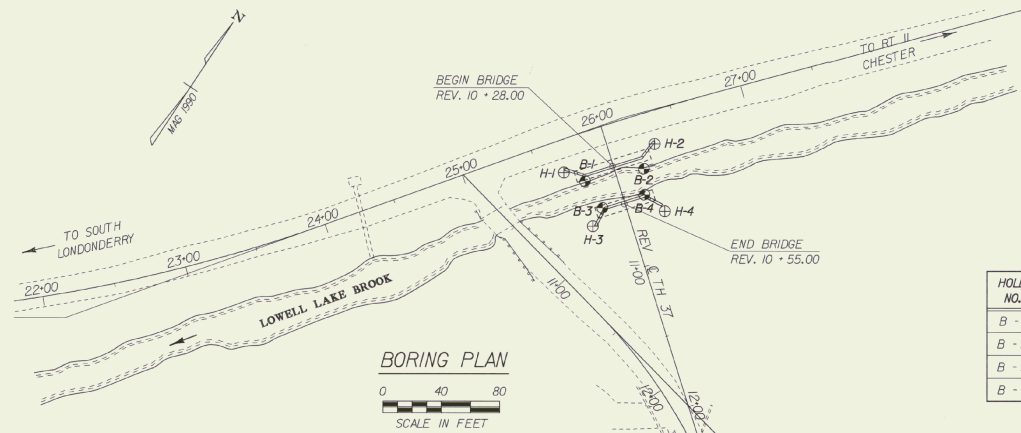
DEPTH (FEET)	LOGS ON CASING	STANDARD PENETRATION TEST NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1022.84					
TOP OF FTG. ABUT. NO. 2 ELEV. = 1021.0'					BOULDERS
10					Top of bedrock @ 5.5'
					Run 11BMD 5.5 - 10.5 Rec. 4.8
					Run 21BMD 10.5-15.5 Rec. 5.0
					See Geologist's Report
20					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard, slightly weathered on fracture planes and competent.
30					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard, slightly weathered on fracture planes and competent.
					Run RECOV. ROD 1 96% 77% 2 100% 80%

BORING NO. B-3

DEPTH (FEET)	LOGS ON CASING	STANDARD PENETRATION TEST NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1022.77					
TOP OF FTG. ABUT. NO. 2 ELEV. = 1021.0'					BOULDERS
10					Top of bedrock @ 4.0'
					Run 11BMD 4.0 - 9.0 Rec. 3.0
					Run 21BMD 9.0 - 14.0 Rec. 4.7
					See Geologist's Report
20					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard, unweathered and competent except for the seam from 7' - 9'.
30					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard unweathered and competent.
					Run RECOV. ROD 1 60% 20% 2 94% 50%

BORING NO. B-4

DEPTH (FEET)	LOGS ON CASING	STANDARD PENETRATION TEST NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1023.74					
TOP OF FTG. ABUT. NO. 2 ELEV. = 1021.0'					GRAVEL AND BOULDERS
10					Top of Bedrock @ 6.0'
					Soft Rock 6.0 - 9.0
					Run 11BMD 9.0 - 14.0 Rec. 3.7
					Run 21BMD 14.0-19.0 Rec. 5.0
					See Geologist's Report
20					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard unweathered and competent.
30					Geologist's Report
					Core consists of medium grained biotite gneiss. The rock is hard unweathered and competent.
					Run RECOV. ROD 1 94% 50% 2 100% 90%



BORING CHART

HOLE NO.	REV. STATION	OFFSET	GROUND ELEV.	ELEV. TLOB
B-1	10 + 32	2' RT.	1023.55	1021.05
B-2	10 + 36	20' LT.	1022.84	1017.34
B-3	10 + 53	15' RT.	1022.77	1018.77
B-4	10 + 53	15' LT.	1023.74	1017.74

DEFINITIONS (AASHTO)

- BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.
- BOULDER** - A rock fragment with an average dimension > 12 inches.
- COBBLE** - Rock fragments with an average dimension between 3 and 12 inches.
- GRAVEL** - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0029" (#200 sieve).
- SILT** - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED** - Alternate layers of silt and clay.
- HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.
- MUCK** - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT** - Weight of water divided by dry weight of soil.
- FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP** - Inclination of bed with a horizontal plane.

GENERAL NOTES

- The subsurface explorations shown herein were made between 7-20-93... and 7-28-93... by the Agency.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor 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 interpretation, independent analysis or judgement by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

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STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of LONDONDERRY Bridge No. 21
 Highway No. T. H. 37 Log Sta. 10 + 4.5
T. H. 37 OVER THE LOWELL LAKE BROOK
BORING INFORMATION SHEET ONE
 Designed By G. COLGRIVE Drawn By G. ROY
 Checked By G. COLGRIVE Date 9/93 J.H. WEAVER Date 9/93
 PROJECT LONDONDERRY PROJECT NO. TH3 - 9006
 I.G. Quoted as per 11/11/93 8910933 1093301
 Bridge Sheet No. 1 Sheet 1 of 33

BORING NO. H-1

DEPTH	BLOCKS ON CASTING	STANDARD PENETRATION NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1028.56					
TOP OF FTG. ABUT. NO. 1 ELEV. = 1021.0'					
10					BOULDERS Top of Bed-rock @ 7.0' Run 1 BXMDC 7.0 - 12.0 Rec. 5.0 Run 2 BXMDC 12.0 - 17.0 Rec. 5.0 See Geologist's Report
20					Hole stopped @ 17.0' in Bedrock. Geologist's Report: Core consists of a medium grained, biotite gneiss. The rock is hard, unweathered except for fracture surfaces, and competent.
30					Fractures in top 2 feet of Run #1 are slightly weathered. RUN RECOV. ROD 1 100% 65% 2 100% 87%

BORING NO. H-2

DEPTH	BLOCKS ON CASTING	STANDARD PENETRATION NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1029.94					
TOP OF FTG. ABUT. NO. 1 ELEV. = 1021.0'					
10					BOULDERS Top of Bed-rock @ 9.0'
20					BXMC 9.0 - 14.0 Rec. 4.1 See Geologist's Report Hole stopped @ 14.0' in Bedrock. Geologist's Report: Core consists of medium grained biotite gneiss. The rock is hard, slightly weathered on fracture planes and competent. RUN RECOV. ROD 1 94% 57%

BORING NO. H-3

DEPTH	BLOCKS ON CASTING	STANDARD PENETRATION NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1029.94					
TOP OF FTG. ABUT. NO. 2 ELEV. = 1021.0'					
10					BOULDERS Top of Bed-rock @ 4.5' Run 1 BXMDC 4.5 - 9.5 Rec. 2.2 Run 2 BXMDC 9.5 - 14.5 Rec. 4.5 See Geologist's Report
20					Hole stopped @ 14.5' in Bedrock. Geologist's Report: Core consists of medium grained biotite gneiss. The rock is hard, un- weathered except in fracture zones and competent. The core crosses a fracture zone moderate to severely weathered material from 6' - 5.5' RUN RECOV. ROD 1 44% 7% 2 90% 82%
30					

BORING NO. H-4

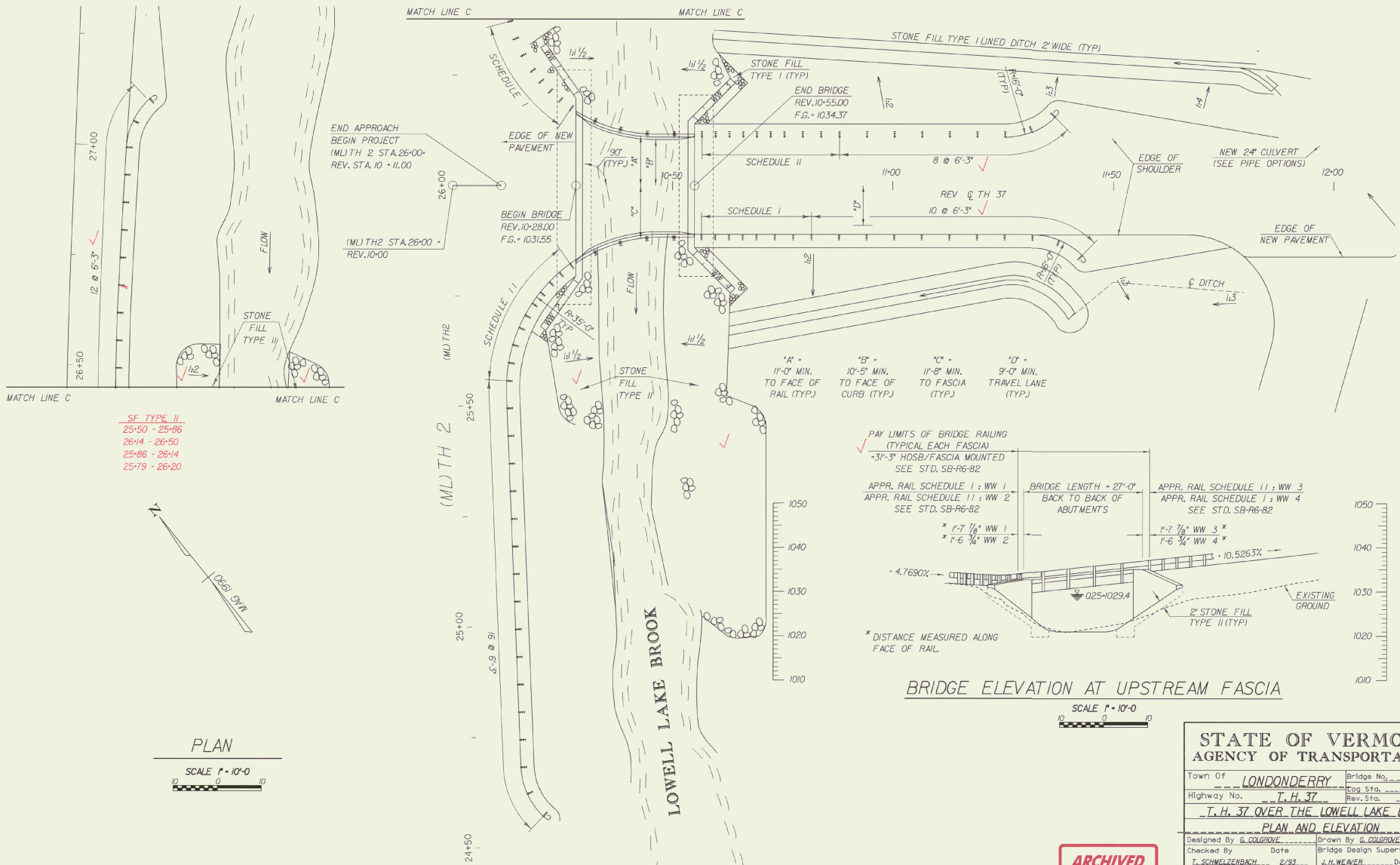
DEPTH	BLOCKS ON CASTING	STANDARD PENETRATION NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
ELEV. 1028.30					
TOP OF FTG. ABUT. NO. 2 ELEV. = 1021.0'					
10					Top of Bed-rock @ 2.5' BXMDC 2.5 - 7.5 Rec. 4.0 See Geologist's Report
20					Hole stopped @ 7.5' in Bedrock. Geologist's Report: Core consists of a medium grained biotite gneiss. The rock is hard and unweathered except on fracture planes and competent. Top foot of core shows slight to moderate weathering on fracture planes. RUN RECOV. ROD 1 80% 53%

BORING CHART

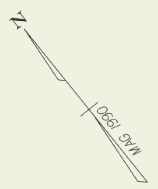
HOLE NO.	REV. STATION	OFFSET	GROUND ELEV.	ELEV. TLOB
H - 1	10 + 22	33' RT.	1028.56	1021.56
H - 2	10 + 22	32' LT.	1029.94	1020.94
H - 3	10 + 63	25' RT.	1029.94	1025.44
H - 4	10 + 68	25' LT.	1028.30	1025.80

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ON CADD**

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. <u>0 + 45.5</u>
<u>T. H. 37 OVER THE LOWELL LAKE BROOK</u>	
<u>BORING INFORMATION SHEET TWO</u>	
Designed By <u>G. COLGROVE</u>	Drawn By <u>G. BOI</u>
Checked By <u>G. COLGROVE</u>	Date <u>2/93</u>
Bridge Design Supervisor <u>J. H. WEAVER</u> Date <u>2/93</u>	
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
I.G. Swafford\N:\mtpool\net\99\1093\construct\info\1093012.dwg ... e 10930021	
Bridge Sheet No. _____	Sheet <u>2</u> of <u>33</u>

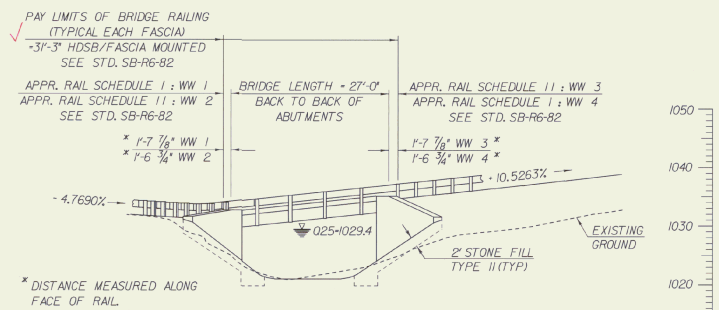


SF TYPE II
 25+50 - 25+86
 26+14 - 26+50
 25+86 - 26+14
 25+79 - 26+20



PLAN
 SCALE 1" = 10'-0"
 0 10

- *A* - 11'-0" MIN. TO FACE OF RAIL (TYP.)
- *B* - 10'-5" MIN. TO FACE OF CURB (TYP.)
- *C* - 11'-8" MIN. TO FASCIA (TYP.)
- *D* - 9'-0" MIN. TRAVEL LANE (TYP.)

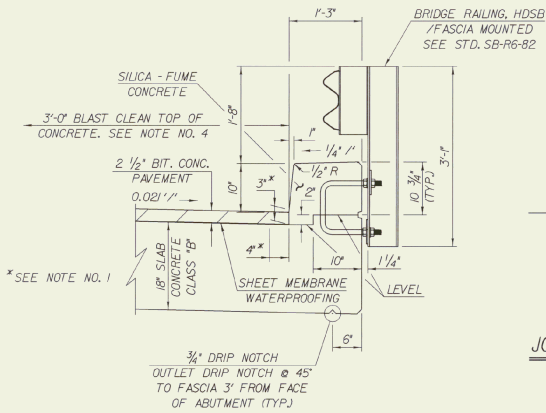


BRIDGE ELEVATION AT UPSTREAM FASCIA

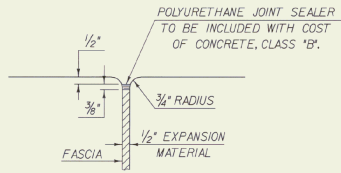
SCALE 1" = 10'-0"
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STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. <u>10+41.5</u>
<u>T. H. 37 OVER THE LOWELL LAKE BROOK</u>	
<u>PLAN AND ELEVATION</u>	
Designed By <u>G. COLBROVE</u>	Drawn By <u>G. COLBROVE</u>
Checked By <u>T. SCHWELZENBACH</u>	Date <u>2/93</u>
PROJECT NO. <u>LONDONDERRY TH3 - 9006</u>	
I.G. Swiret 2002/11/10/2002/11/10/2003/construct/1003003.dgn 4/10/2002	
Bridge Sheet No. _____	Sheet <u>13</u> of <u>33</u>

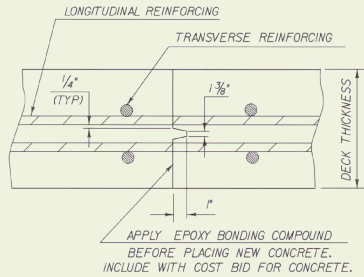
ARCHIVED
ON CADD



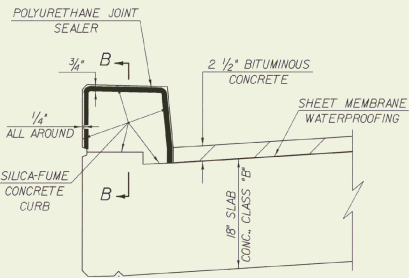
CURB AND RAIL DETAIL
SCALE: 1" = 1'-0"



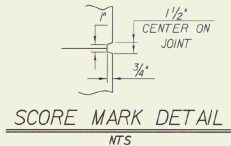
JOINT BETWEEN FASCIA AND WINGWALL



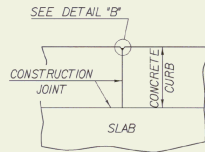
TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS



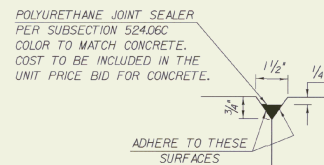
TYPICAL SECTION THROUGH CONCRETE CURB CONSTRUCTION JOINT
NTS



SCORE MARK DETAIL
NTS



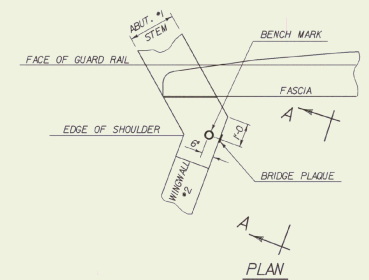
SECTION B - B
NTS



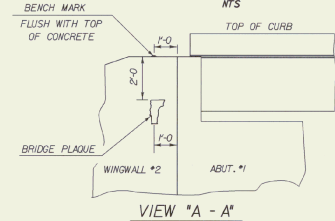
DETAIL "B"
NTS

NOTES

1. INDICATES AREA ALONG DECK AND UP FACE OF CURB FOR PLACEMENT OF 2 COATS OF POLYURETHANE MEMBRANE.
2. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING.
3. SHEET MEMBRANE WATERPROOFING SHALL EXTEND TO FACE OF CURB AS SHOWN AT LEFT.
4. BLAST CLEAN 3'-0" FROM FACE OF CURB AND 3" UP CURB FACE PRIOR TO PLACING MEMBRANE.
5. CONSTRUCTION JOINTS THROUGH CONCRETE CURBS SHALL BE SPACED A MAXIMUM OF 15'-0" CENTER TO CENTER AND SHALL BE 1'-6" MINIMUM FROM THE CENTER OF THE NEAREST BRIDGE RAIL POST. CONCRETE SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
6. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB CONSTRUCTION JOINTS. CURB REINFORCING STIRRUP BARS SHALL BE TURNED AS REQUIRED TO FIT FLARED ENDS.



PLAN
NTS

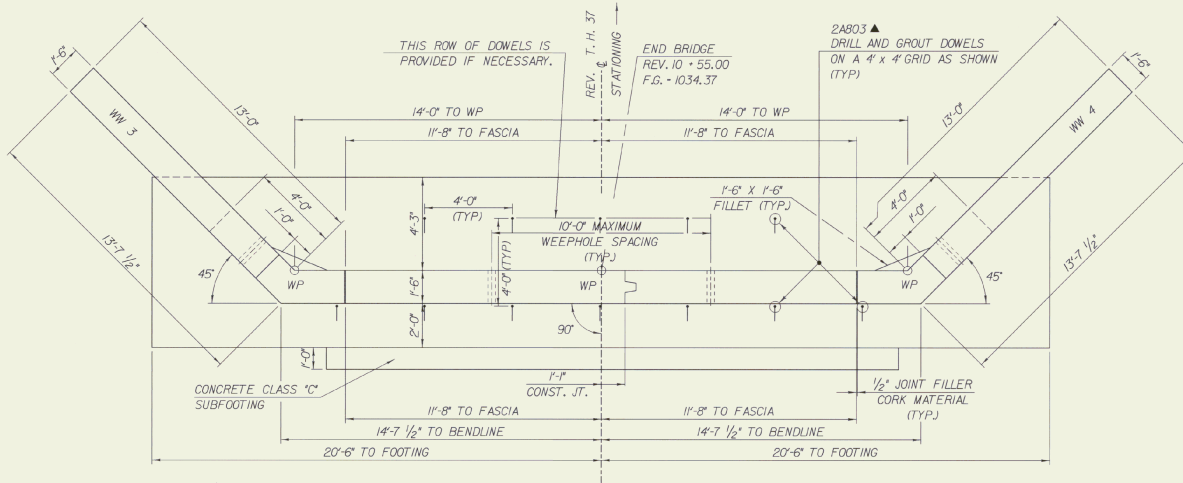


VIEW "A - A"
LOCATE BENCH MARK AND BRIDGE PLAQUE
NTS

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.

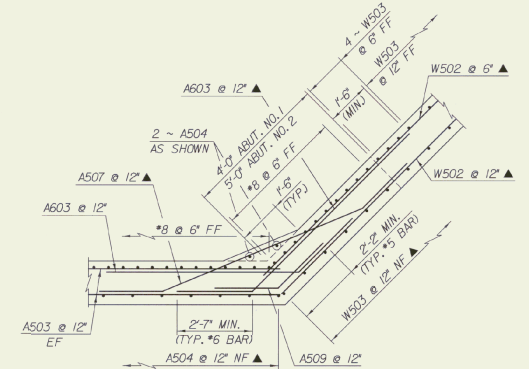
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	LONDONDERRY	Bridge No.	2/
Highway No.	T. H. 37	Log Sta.	
T. H. 37 OVER THE LOWELL LAKE BROOK			
CURB AND BRIDGE RAIL DETAILS			
Designed By	G. COLGROVE	Drawn By	G. BOY
Checked By	Date	Bridge Design Supervisor	Date
T. SCHMELZENBACH	2/96	J. H. WEAVER	2/96
PROJECT	LONDONDERRY	PROJECT NO.	TH3 - 9006
I.G. (User) saved \\111ngobinet\B91093\construct\c\1093016.dgn		4/10/2006	
Bridge Sheet No.		Sheet	16 of 33

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ABUTMENT NO. 2 PLAN

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



TYPICAL WINGWALL CORNER REINFORCING DETAIL

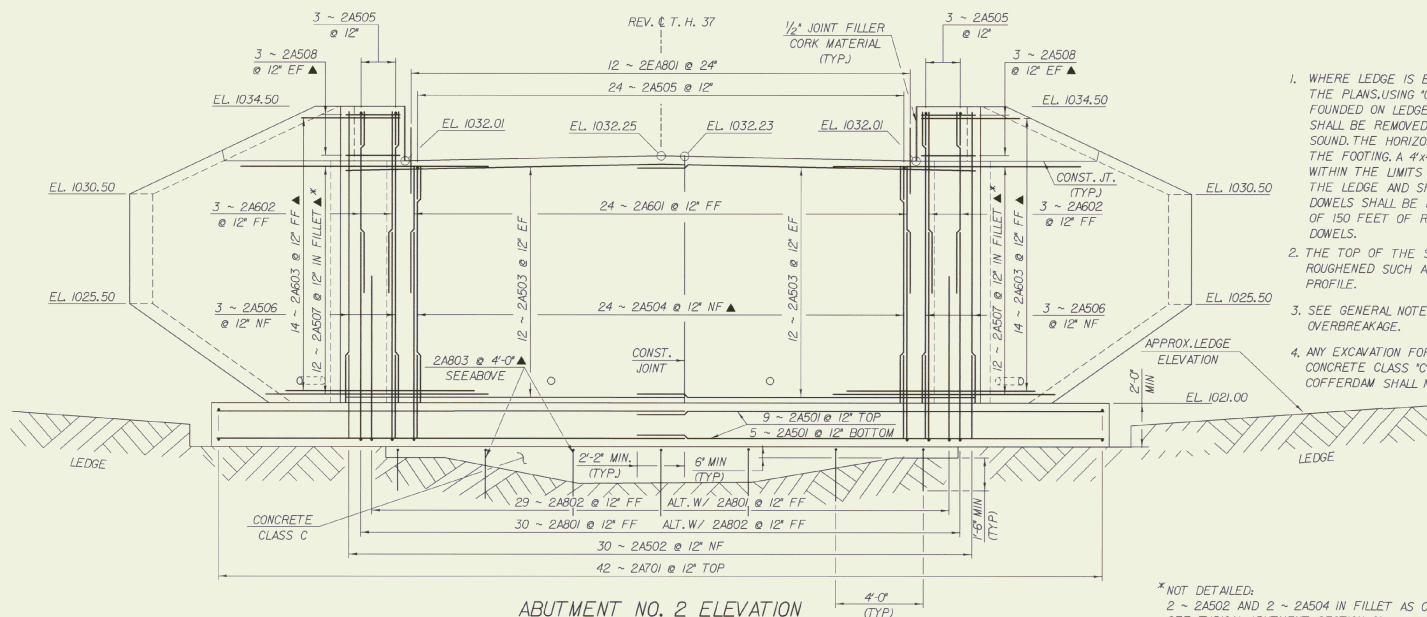
BELOW BRIDGE SEAT

SCALE: 1/2" = 1'-0"
(FOR DETAIL ABOVE BRIDGE SEAT - CUT TO FIT)

- WHERE LEDGE IS BELOW THE FOOTING ELEVATION, A SUBFOOTING SHALL BE PLACED, AS SHOWN ON THE PLANS, USING "CONCRETE CLASS C" UP TO THE FOOTING ELEVATION. THE SUBFOOTING SHALL BE FOUNDED ON LEDGE WHICH HAS BEEN CLEANED OF ALL LOOSE ROCK AND OTHER DEBRIS. THE LEDGE SHALL BE REMOVED AS REQUIRED TO INSURE THAT THE SURFACE BENEATH THE SUBFOOTING IS SOUND. THE HORIZONTAL LIMITS OF THE SUBFOOTING SHALL BE ONE FOOT OUTSIDE THE LIMITS OF THE FOOTING. A 4' x 4' GRID PATTERN OF #8 DOWELS SHALL BE DRILLED AND GROUTED INTO THE LEDGE WITHIN THE LIMITS OF THE FOOTING. THE DOWELS SHALL HAVE A MINIMUM OF 1'-6" EMBEDMENT INTO THE LEDGE AND SHALL EXTEND INTO THE SUBFOOTING. DRILLING AND GROUTING DOWELS SHALL BE PAID USING THE ITEM "DRILLING AND GROUTING DOWEL." AN ESTIMATED QUANTITY OF 150 FEET OF REINFORCING STEEL HAS BEEN INCLUDED IN THE REINFORCING SCHEDULE FOR THE DOWELS.
- THE TOP OF THE SUBFOOTING SHALL BE INTENTIONALLY ROUGHENED SUCH AS WITH A GARDEN RAKE TO 1/4" +/- IN PROFILE.
- SEE GENERAL NOTE 38 FOR MORE INFORMATION ON OVERBREAKAGE.
- ANY EXCAVATION FOR THE PLACEMENT OF THE CONCRETE CLASS "C" SUBFOOTING IN THE COFFERDAM SHALL NOT BE CONSIDERED EXTRA WORK.

NOTE:

NF - NEAR FACE
FF - FAR FACE
EF - EACH FACE
▲ - CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.



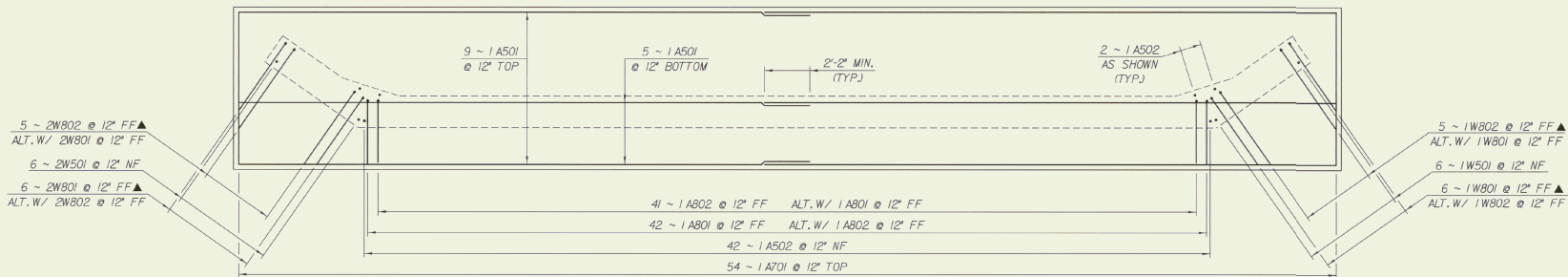
ABUTMENT NO. 2 ELEVATION

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

* NOT DETAILED:
2 ~ 2A502 AND 2 ~ 2A504 IN FILLET AS CONFIGURED IN N.F.
SEE TYPICAL ABUTMENT SECTION ON SHEET 17 AND WINGWALL CORNER REINFORCING DETAILS THIS SHEET.

ARCHIVED ON CADD

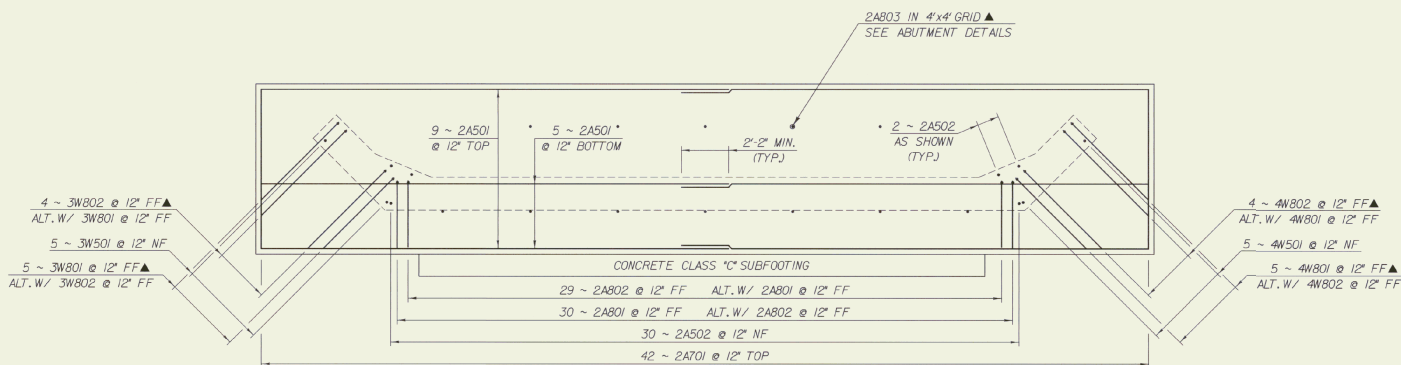
STATE OF VERMONT	
AGENCY OF TRANSPORTATION	
Town Of LONDONDERRY	Bridge No. 21
Highway No. T. H. 37	Log Sta. 0 + 4.50
T. H. 37 OVER THE LOWELL LAKE BROOK	
ABUTMENT NO. 2 DETAILS	
Designed By G. COLEMAN	Drawn By G. BAY
Checked By T. SCHMELZENBACH	Bridge Design Supervisor J. H. WEAVER
PROJECT LONDONDERRY	PROJECT NO. TH3 - 9006
I.G. (www.vermont.gov) 11/10/2021 11:09:19 AM 1093.construction\1093018.dgn 1093018	
Bridge Sheet No. 1	Sheet 18 of 33



ABUTMENT NO. 1 FOOTING

REINFORCING DETAIL

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



ABUTMENT NO. 2 FOOTING

REINFORCING DETAIL

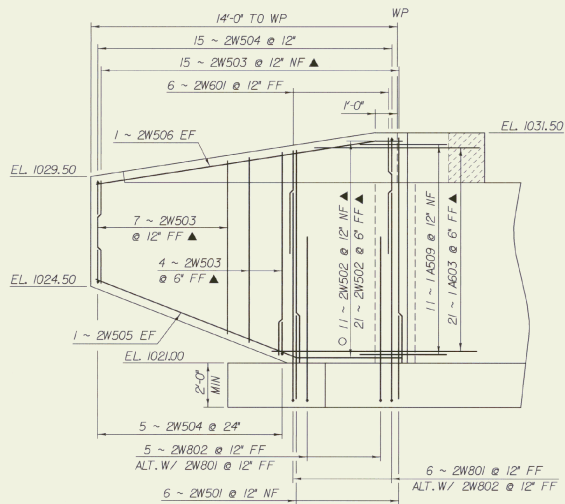
SCALE: 3/8" = 1'-0"

NOTE:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

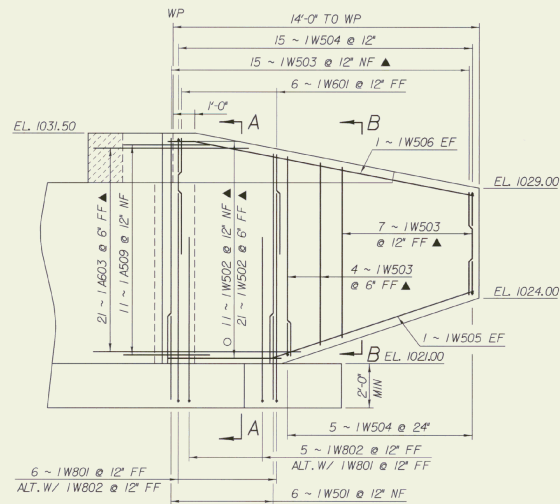
ARCHIVED
ON CADD

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. <u>0 + 4.50</u>
<u>T. H. 37 OVER THE LOWELL LAKE BROOK</u>	
FOOTING REINFORCING DETAILS	
Designed By <u>G. COLGROVE</u>	Drawn By <u>G. BOY</u>
Checked By <u>T. SCHMELZENBACH</u>	Bridge Design Supervisor <u>J. H. WEAVER</u>
Date <u>2/96</u>	Date <u>2/96</u>
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
I:\G:\web\apps\1111\pool\net\891093\construction\1033019.dwg ... 1/29/2019	
Bridge Sheet No. <u>2</u>	Sheet <u>2</u> of <u>33</u>



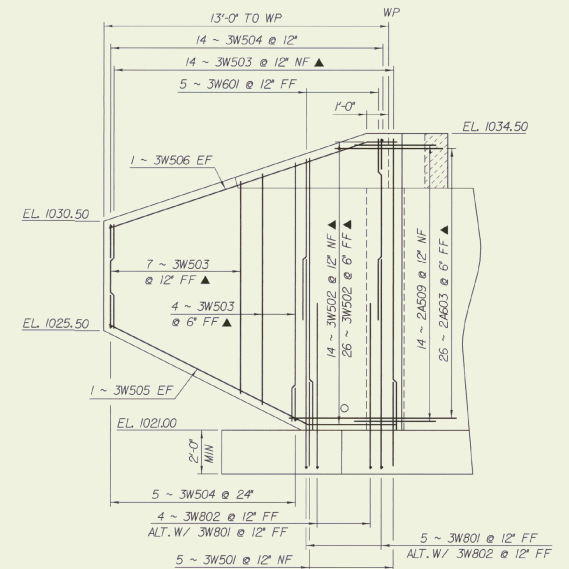
WINGWALL NO. 2 ELEVATION

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



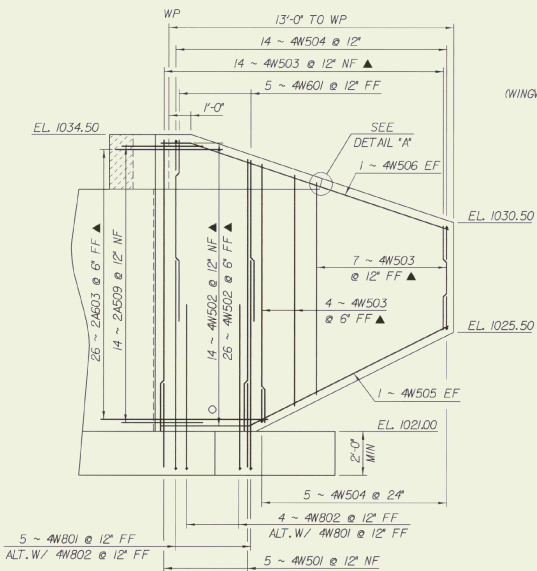
WINGWALL NO. 1 ELEVATION

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



WINGWALL NO. 3 ELEVATION

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



WINGWALL NO. 4 ELEVATION

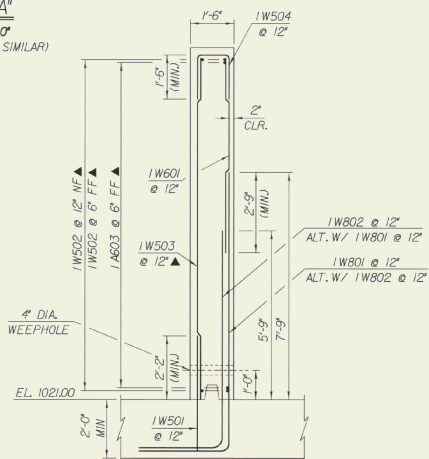
SCALE: 3/8" = 1'-0"



DETAIL "A"

SCALE: 1" = 1'-0"

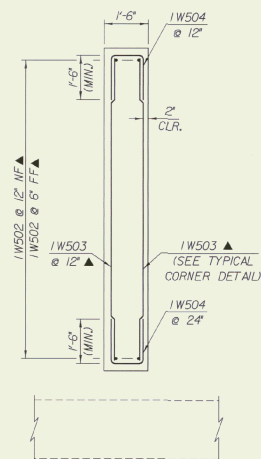
(WINGWALLS 1, 2 & 3 SIMILAR)



SECTION A - A

SCALE: 1/2" = 1'-0"

(WINGWALLS 2, 3 & 4 SIMILAR)



SECTION B - B

SCALE: 1/2" = 1'-0"

(WINGWALLS 2, 3 & 4 SIMILAR)

ARCHIVED ON CADD

NOTE:

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- FF - FAR FACE
- EF - EACH FACE
- ▲ - CUT TO FIT IN FIELD
- 3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	LONDONDERRY	Bridge No.	21
Highway No.	T. H. 37	Log Sta.	
T. H. 37 OVER THE LOWELL LAKE BROOK			
WINGWALL REINFORCING DETAILS			
Designed By	G. COLGROVE	Drawn By	G. BOY
Checked By	Date	Bridge Design Supervisor	Date
T. SCHMELZENBACH	2/96	J. H. WEAVER	2/96
PROJECT	LONDONDERRY	PROJECT NO.	TH3 - 9006
I.C.:\info\cad\11\mg\cadd\891093\construct\1093020.dgn		6/29/2001	
Bridge Sheet No.		Sheet	of 33

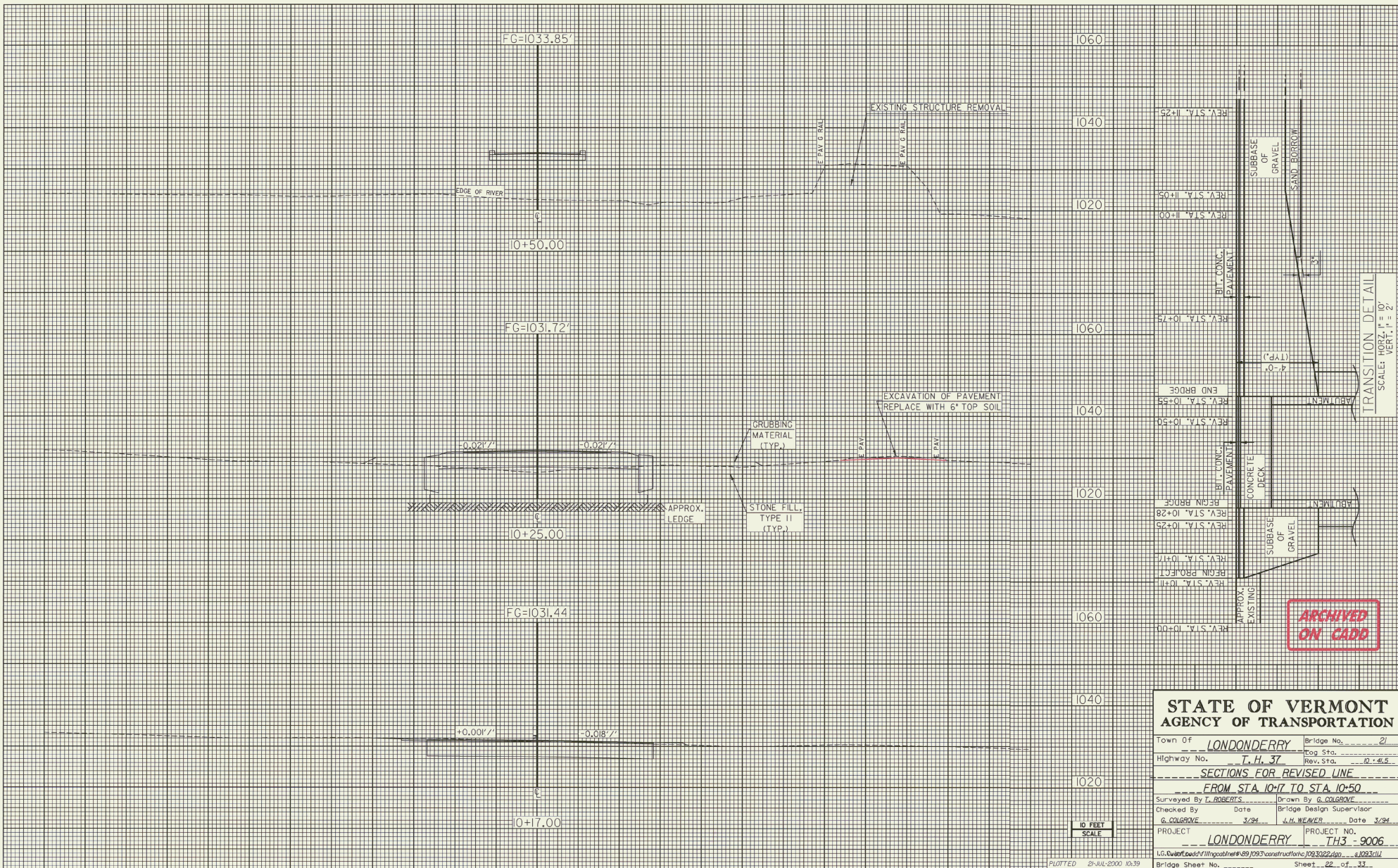
TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	NEW AND SALVAGED SIGNS				EXIST. POSTS		NO. OF POSTS	NEW SIGN POSTS														REMARKS	SIGN DETAIL					
			"A"	"B"	SALV. SIGN	SALV. T.I.S.	RET.	SALV.		FLANGED CHANNEL LB./FT.			TUBULAR ALUMINUM		TUBULAR STEEL				W-SHAPE STEEL		FTG. SIZE		SIGN FRAME		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER				
										1.12	2.0	3.0	3.0"Ø	4.0"Ø	FOUND.	3"Ø	3.5"Ø	4.0"Ø	5.0"Ø	POST SIZE	WEIGHT	24"					30"			
SL TH 37 STA 10+23 LT																												Remove		
SL TH 37 STA 10+13 RT																												Remove		
SL TH 37 STA 10+29 RT STA 10+52 LT	+																											Remove Both Signs		
TH 37 REV 10+61,17 RT		24' x 30'				5																								E-141
TH 37 REV 12+90,17 LT		30' x 30' 30' x 30'				6.25																								E-150
TH 37 REV 10+21,28 LT		30' x 30'				6.25																						Reset NEW SIGN & POST		
TH 37 REV 10+21,35 RT																												Reset		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE".			SF.	SF.	EA.	SF.			LBS.	LBS.	LBS.	LBS.	LBS.	EA.	LBS.	LBS.	LBS.	LBS.		LBS.	EA.	EA.								
			14		-2				108	135																				
										108	135																			
TOTALS			17.5		1																									

**ARCHIVED
ON CADD**

DRAWN BY G.Colgrove DATE _____
 SQUAD LEADER J.W.Glover
 DESIGN FILE NO. /str-3/89/1093/s/1093s.dgn
 PARM FILE s/1093s.dgn DATE PLOTTED Jan.28,1997
 PROJ. NAME Londonderry
 PROJ. NO. TH 3-9006
 SHEET 21A OF 33 SHEETS

REVISED GWC 1/31/97



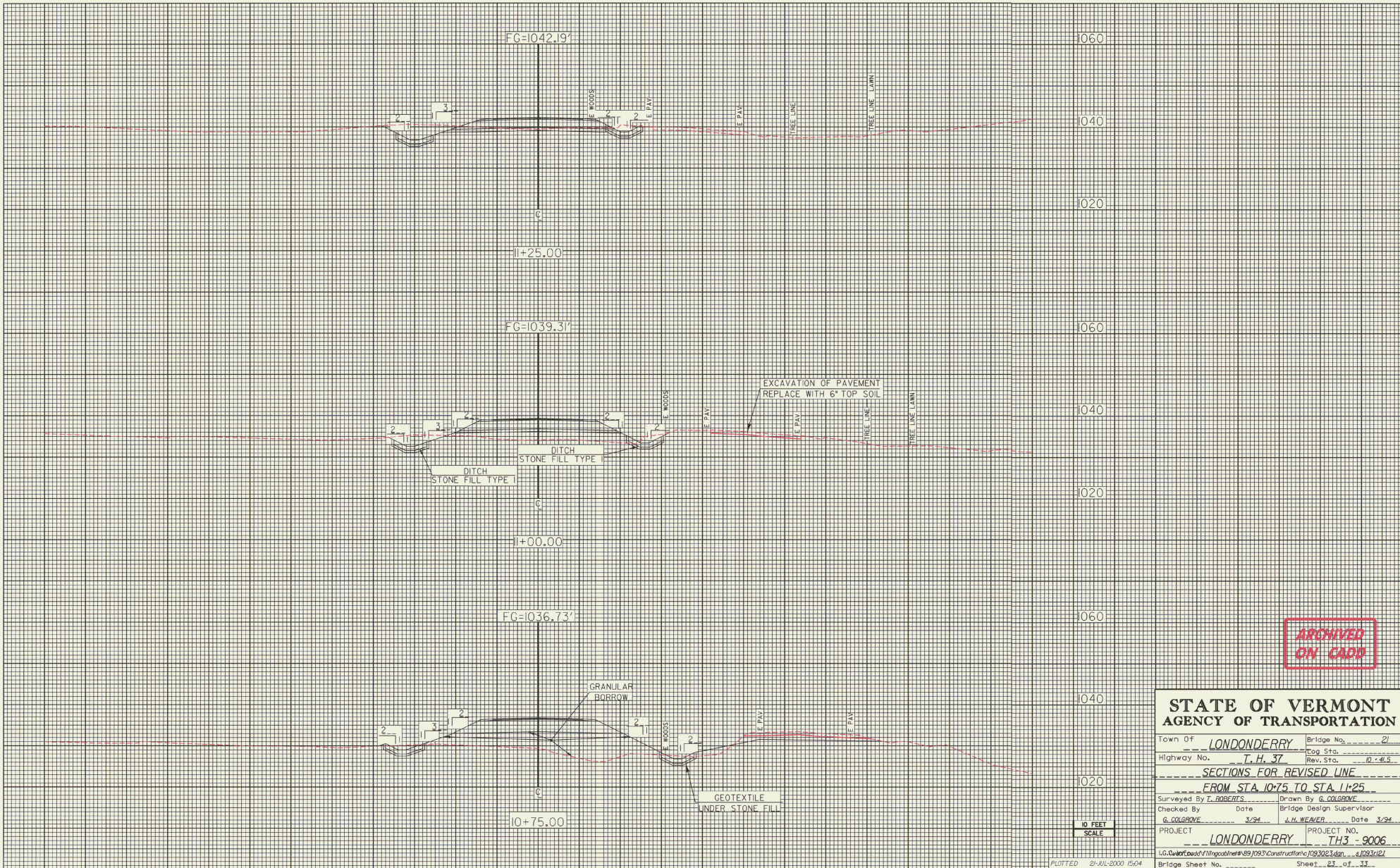
TRANSITION DETAIL
SCALE: HORIZ. 1" = 20'
VERT. 1" = 6'

**ARCHIVED
ON CADD**

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. <u>10+4.5</u>
SECTIONS FOR REVISED LINE	
FROM STA. 10+17 TO STA. 10+50	
Surveyed By <u>T. ROBERTS</u>	Drawn By <u>G. COLGROVE</u>
Checked By <u>G. COLGROVE</u>	Date <u>3/94</u>
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
I.G. Overlaid with file path: \\f:\gpo\htr\93\construct\1033022.dgn - 4/10/93.civil	
Bridge Sheet No. _____	Sheet <u>22</u> of <u>33</u>

10 FEET
SCALE

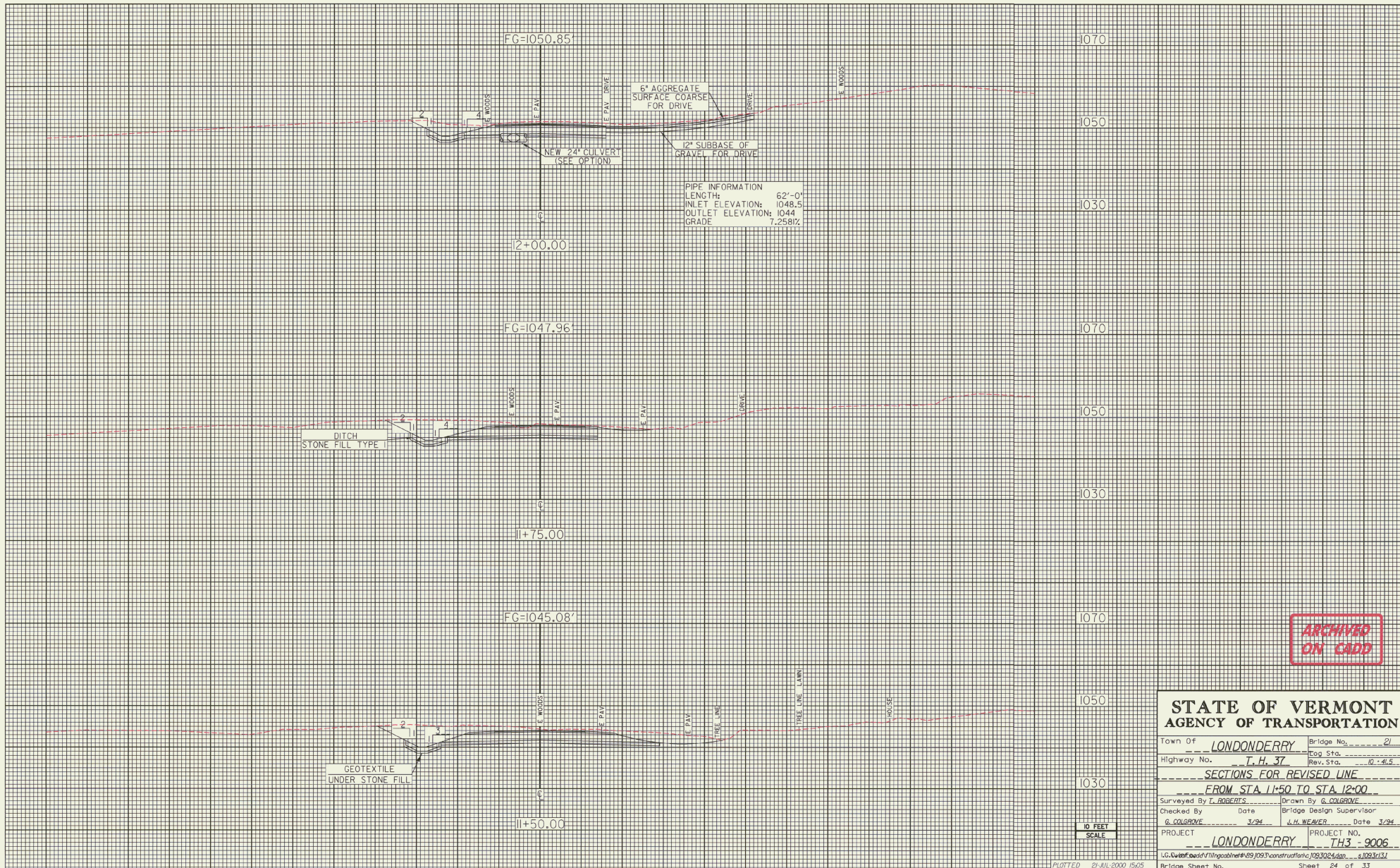


ARCHIVED
ON CAD

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Log Sta. _____
	Rev. Sta. <u>10+41.5</u>
SECTIONS FOR REVISED LINE	
FROM STA. 10+75 TO STA. 11+25	
Surveyed By <u>L. ROBERTS</u>	Drawn By <u>G. COLGRONE</u>
Checked By <u>G. COLGRONE</u>	Date <u>3/94</u>
	Bridge Design Supervisor <u>J. H. NEWER</u>
	Date <u>3/94</u>
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
U.S. Dept. of Transportation #09-1293 Construction #193023.dwg #10931021	
Bridge Sheet No. _____	Sheet <u>23</u> of <u>33</u>

10 FEET
SCALE
PLOTTED 21-JUL-2000 15:04



PIPE INFORMATION
 LENGTH: 62'-0"
 INLET ELEVATION: 1048.5
 OUTLET ELEVATION: 1044
 GRADE: 7.258%

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ON CADD

STATE OF VERMONT
 AGENCY OF TRANSPORTATION

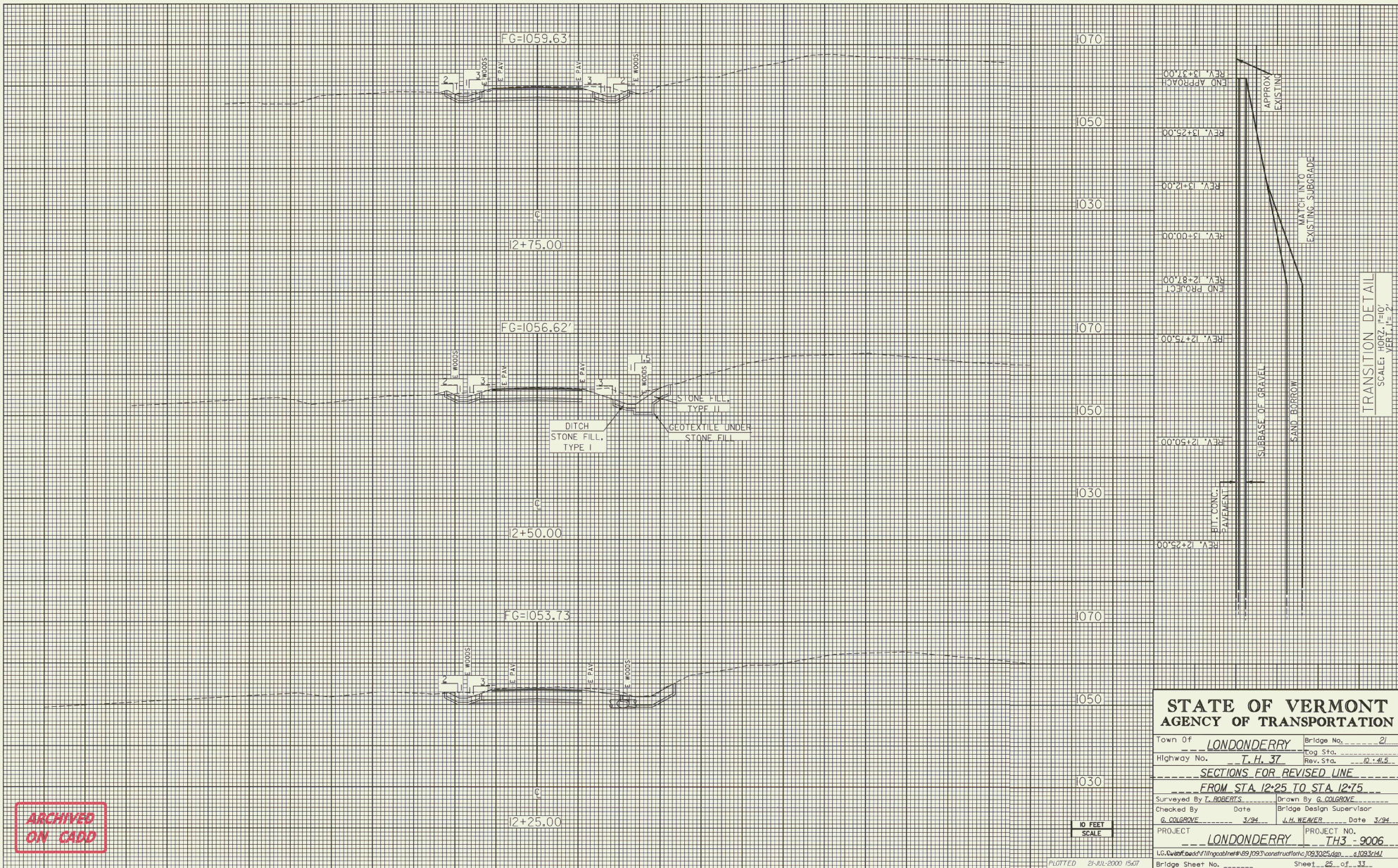
Town Of LONDONDERRY Bridge No. 21
 Highway No. T. H. 37 Log Sta. 10+4.5
 Rev. Sta. 10+4.5

SECTIONS FOR REVISED LINE

FROM STA 11+50 TO STA 12+00
 Surveyed By L. ROBERTS Drawn By G. COLGRONE
 Checked By G. COLGRONE Date 3/94 Bridge Design Supervisor J. H. WEAVER Date 3/94

10 FEET
 SCALE

PROJECT LONDONDERRY PROJECT NO. TH3 - 9006

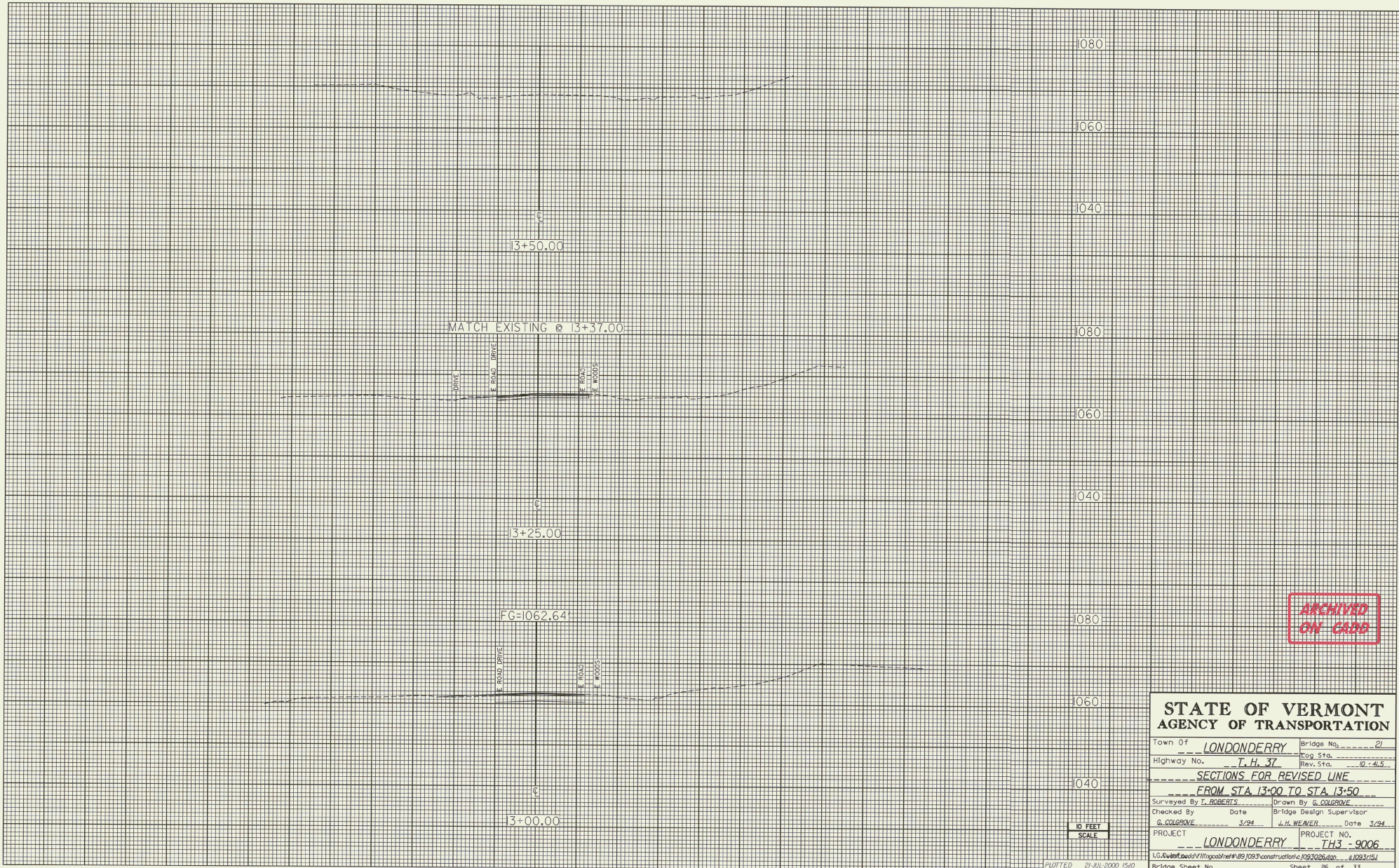


TRANSITION DETAIL
SCALE: HORIZ. 1"=30'
VERT. 1"=4'

ARCHIVED
ON CADD

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of <u>LONDONDERRY</u>	Bridge No. <u>21</u>
Highway No. <u>T. H. 37</u>	Tag Sta. <u>10+4.5</u>
SECTIONS FOR REVISED LINE	
FROM STA. 12+25 TO STA. 12+75	
Surveyed By <u>L. ROBERTS</u>	Drawn By <u>G. COUGROVE</u>
Checked By <u>G. COUGROVE</u>	Date <u>3/94</u>
Bridge Design Supervisor <u>J. H. WEAVER</u>	Date <u>3/94</u>
PROJECT <u>LONDONDERRY</u>	PROJECT NO. <u>TH3 - 9006</u>
Bridge Sheet No. <u> </u>	Sheet <u>25</u> of <u>33</u>



ARCHIVED
ON GRID

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

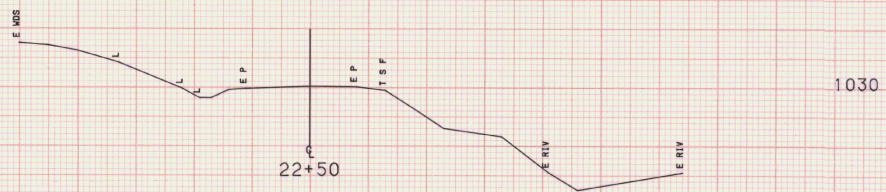
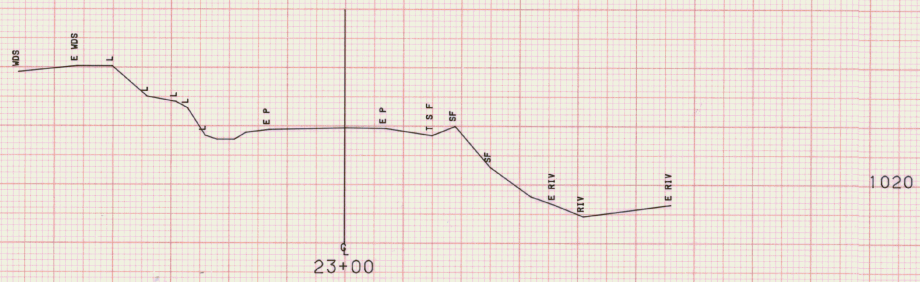
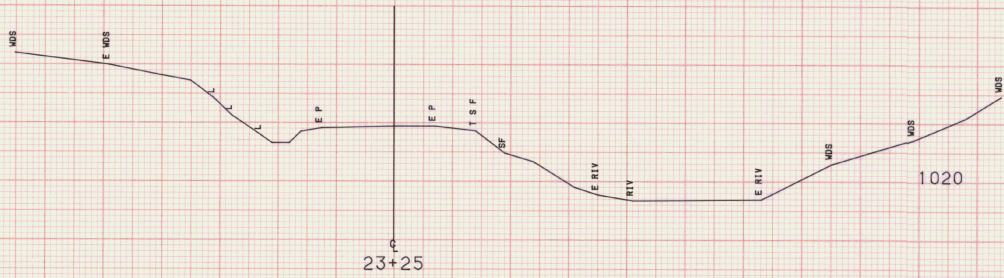
Town of LONDONDERRY Bridge No. 21
 Highway No. T.H. 37 Edge Sta. 0+4.5
 Rev. Sta. 0+4.5

SECTIONS FOR REVISED LINE
FROM STA. 13+00 TO STA. 13+50

Surveyed By T. ROBERTS Drawn By G. COLGROVE
 Checked By G. COLGROVE Date 3/94 Bridge Design Supervisor J. H. WEAVER Date 3/94

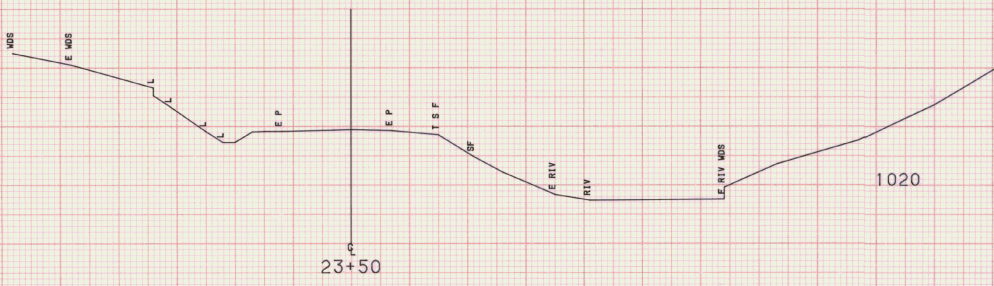
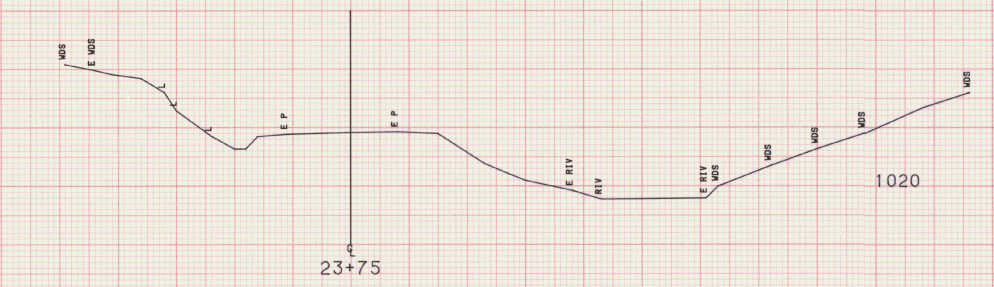
PROJECT LONDONDERRY PROJECT NO. TH3 - 9006
 I.G. & Utility Dept. #111 Reg. # 89-1093 Construction # 1093026/600 - 4 10931151
 Bridge Sheet No. 26 of 33

10 FEET
SCALE



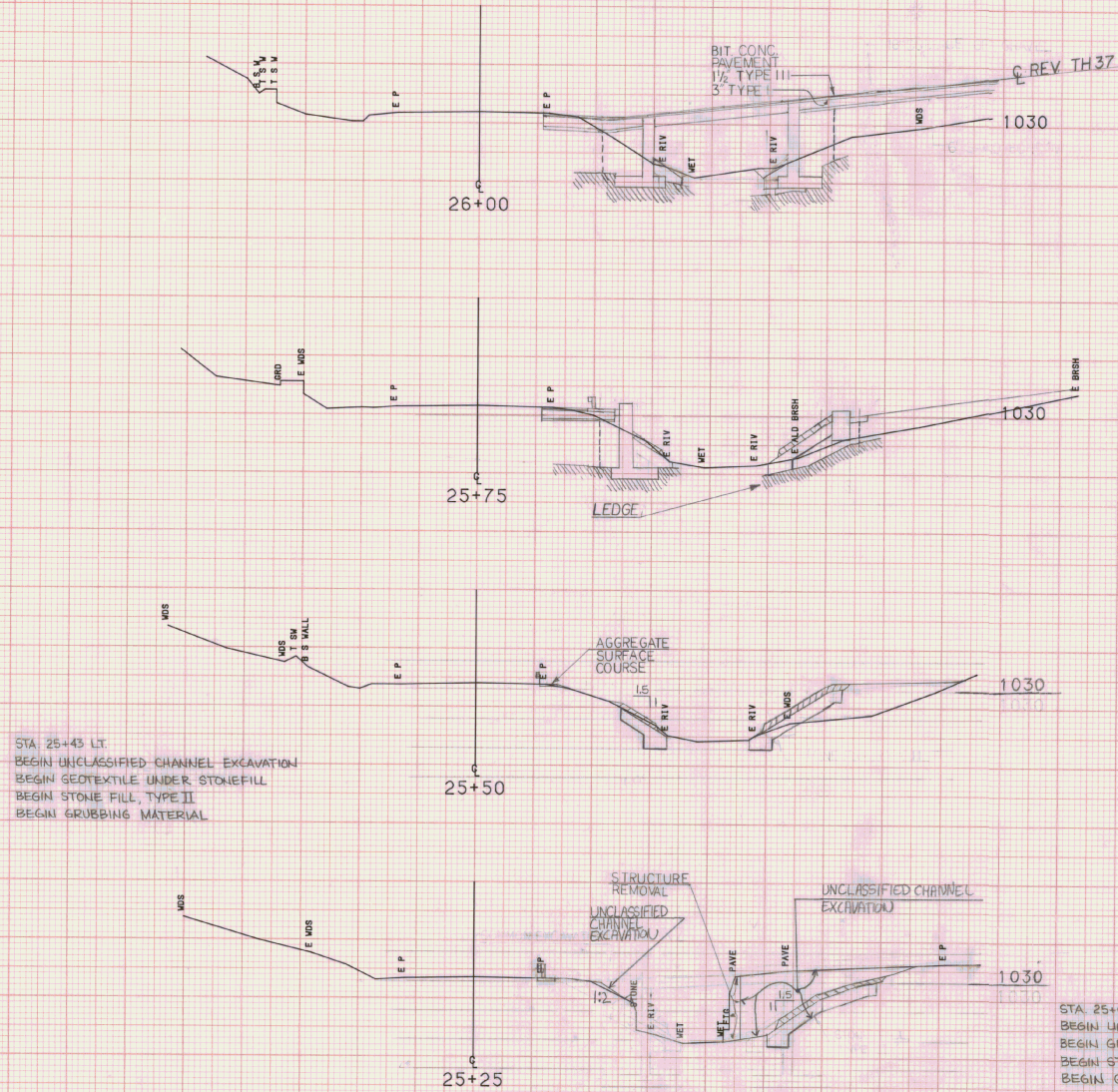
FROM STA.	22+50	TO STA.	23+25
PROJECT NAME	LONDONDERRY M1		
NO.	TH3-9006		
SURVEYED BY	T. ROBERTS	PLOTTED	09/24/90
SHEET	47	OF	77 SHEETS

SCALE 1" = 10 FEET



FROM STA. 23+50 TO STA. 24+00
 PROJECT NAME LONDONDERRY H1
 NO. TH3-9006 PLOTTED 09/24/90
 SURVEYED BY T. ROBERTS 03/90 0313
 SHEET 29 OF 33 SHEETS

SCALE 1" = 10 FEET



STA. 25+43 LT.
 BEGIN UNCLASSIFIED CHANNEL EXCAVATION
 BEGIN GEOTEXTILE UNDER STONEFILL
 BEGIN STONE FILL, TYPE II
 BEGIN GRUBBING MATERIAL

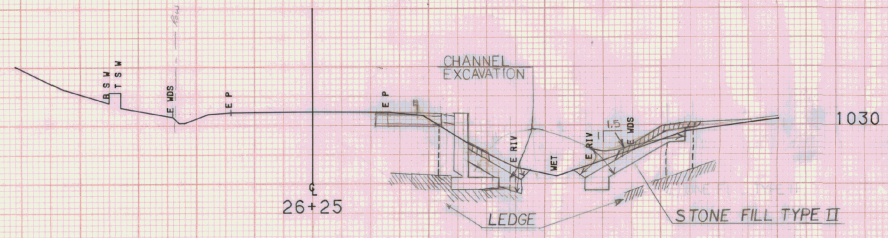
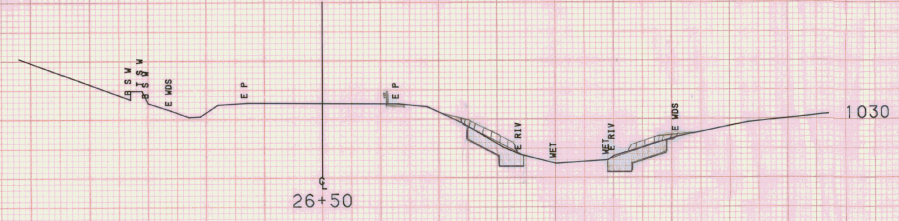
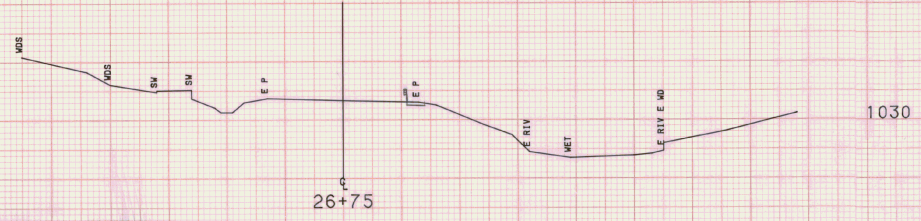
STA. 25+00 RT.
 BEGIN UNCLASSIFIED CHANNEL EXCAVATION
 BEGIN GEOTEXTILE UNDER STONEFILL
 BEGIN STONE FILL, TYPE II
 BEGIN GRUBBING MATERIAL

FROM STA.	25+25	TO STA.	26+00
PROJECT NAME	LONDONDERRY M1		
NO.	THS-9008	PLOTTED	09/24/90
SURVEYED BY	T. ROBERTS	DATE	03/90 0313
SHEET	30	OF	35 SHEETS

SCALE 1" = 10 FEET

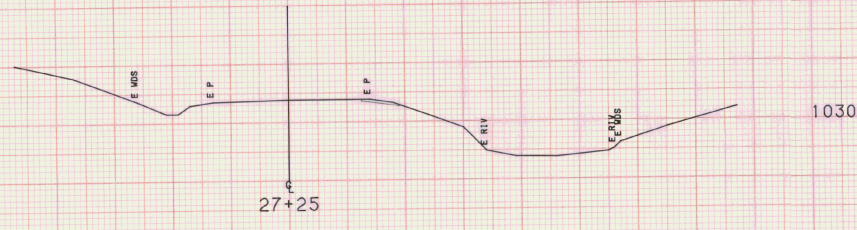
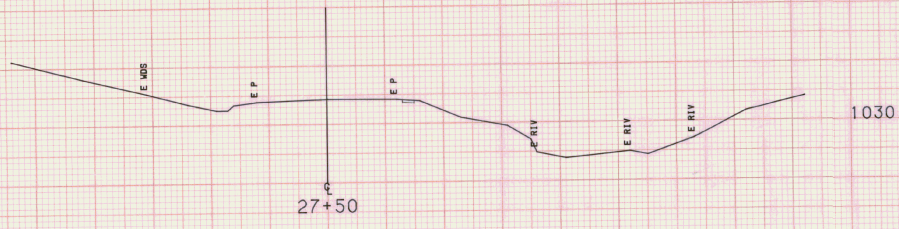
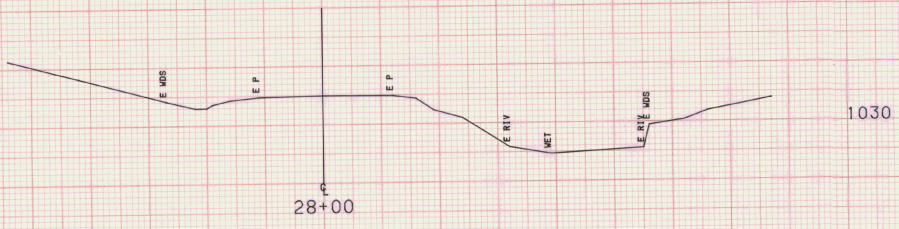
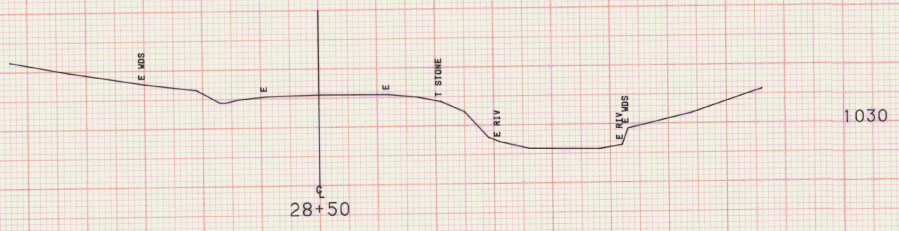
STA. 26+56 LT.
 END UNCLASSIFIED CHANNEL EXCAVATION
 END GEOTEXTILE UNDER STONE FILL
 END STONE FILL, TYPE II
 END GRUBBING MATERIAL

STA. 26+54 RT.
 END UNCLASSIFIED CHANNEL EXCAVATION
 END GEOTEXTILE UNDER STONE FILL
 END STONE FILL, TYPE II
 END GRUBBING MATERIAL



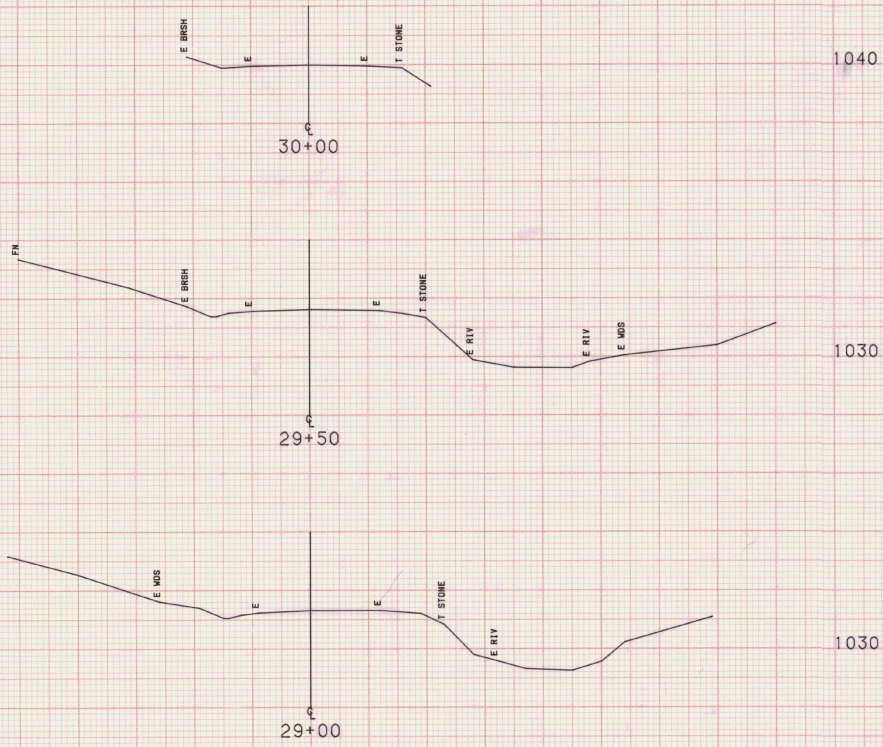
SCALE 1" = 10 FEET

FROM STA.	26+25	TO STA.	27+00
PROJECT NAME	LONDONDERRY M1		
NO.	THS-9006		
SURVEYED BY	T. ROBERTS	PLOTTED	09/24/90
SHEET	31	OF	33 SHEETS



FROM STA.	27+25	TO STA.	28+50
PROJECT NAME	LONDONDERRY HI		
NO.	TH3-9006	PLOTTED	09/24/90
SURVEYED BY	L. ROBERTS	03/90	0313
SHEET	36	OF	37 SHEETS

SCALE 1" = 10 FEET



FROM STA.	29+00	TO STA.	30+00
PROJECT NAME	LONDONDERRY HI		
NO.	TH3-9006		
SURVEYED BY	T. ROBERTS	PLOTTED	09/24/90
SHEET	35	OF	38 SHEETS

SCALE 1" = 10 FEET