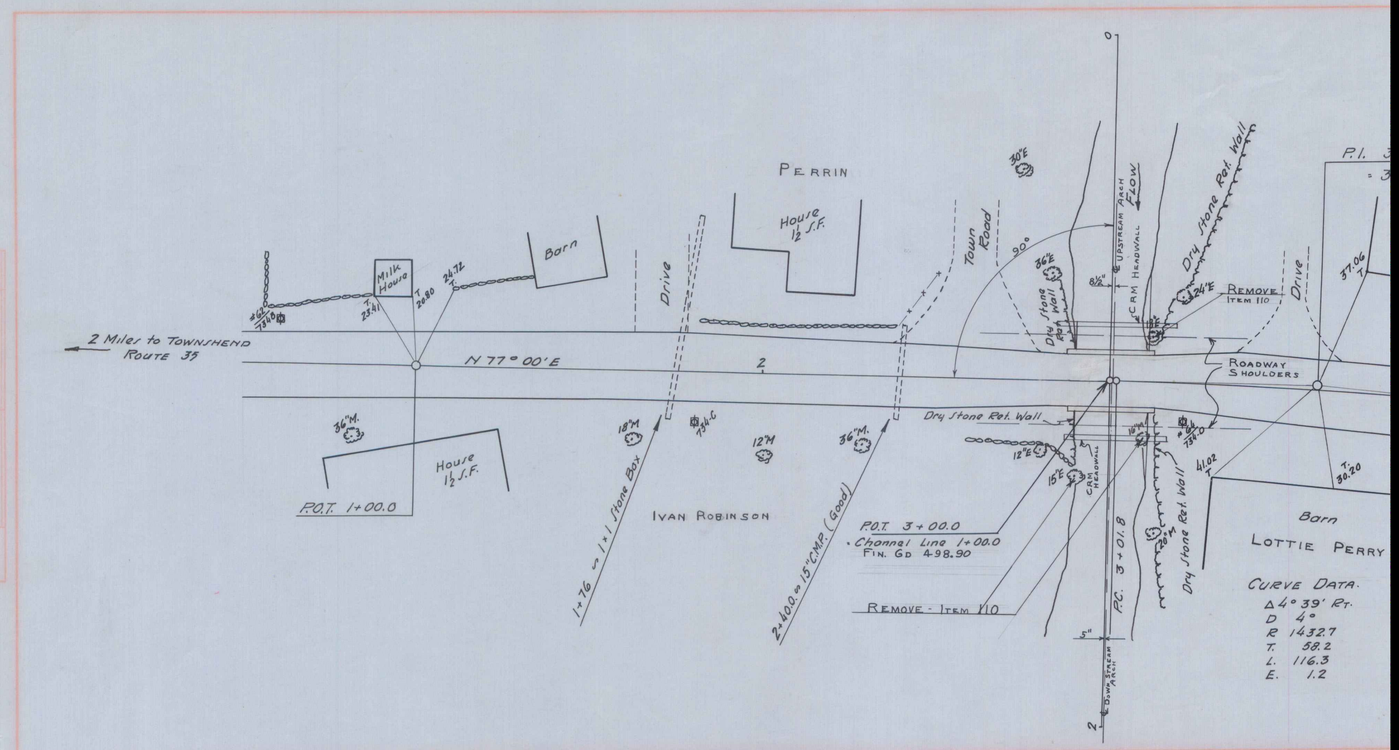
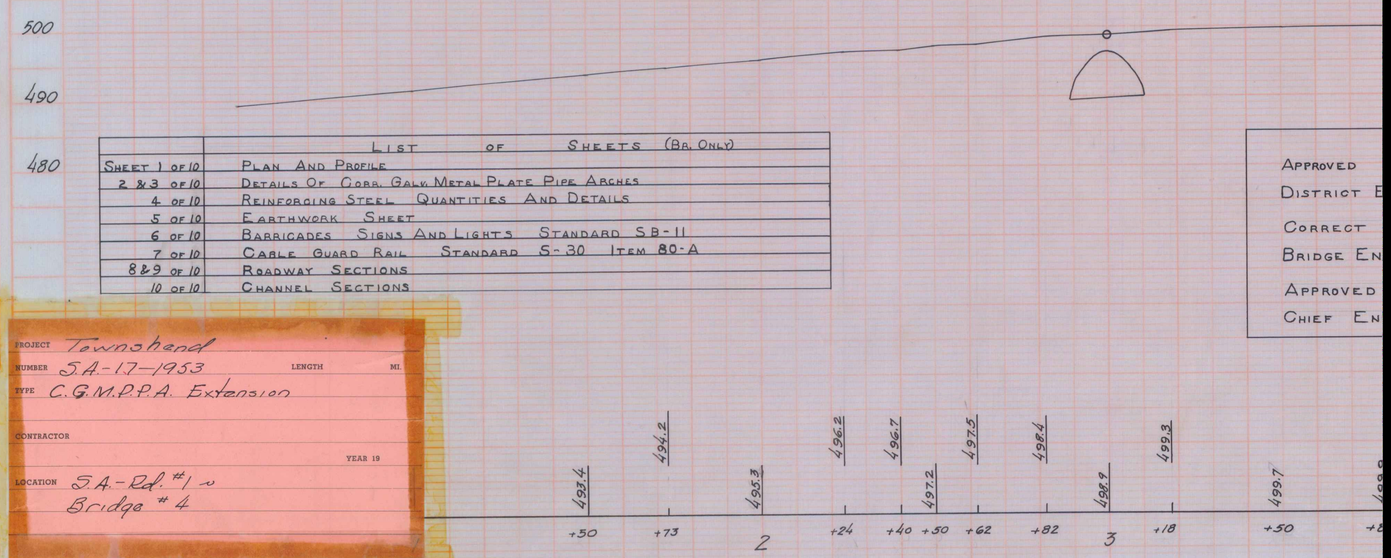


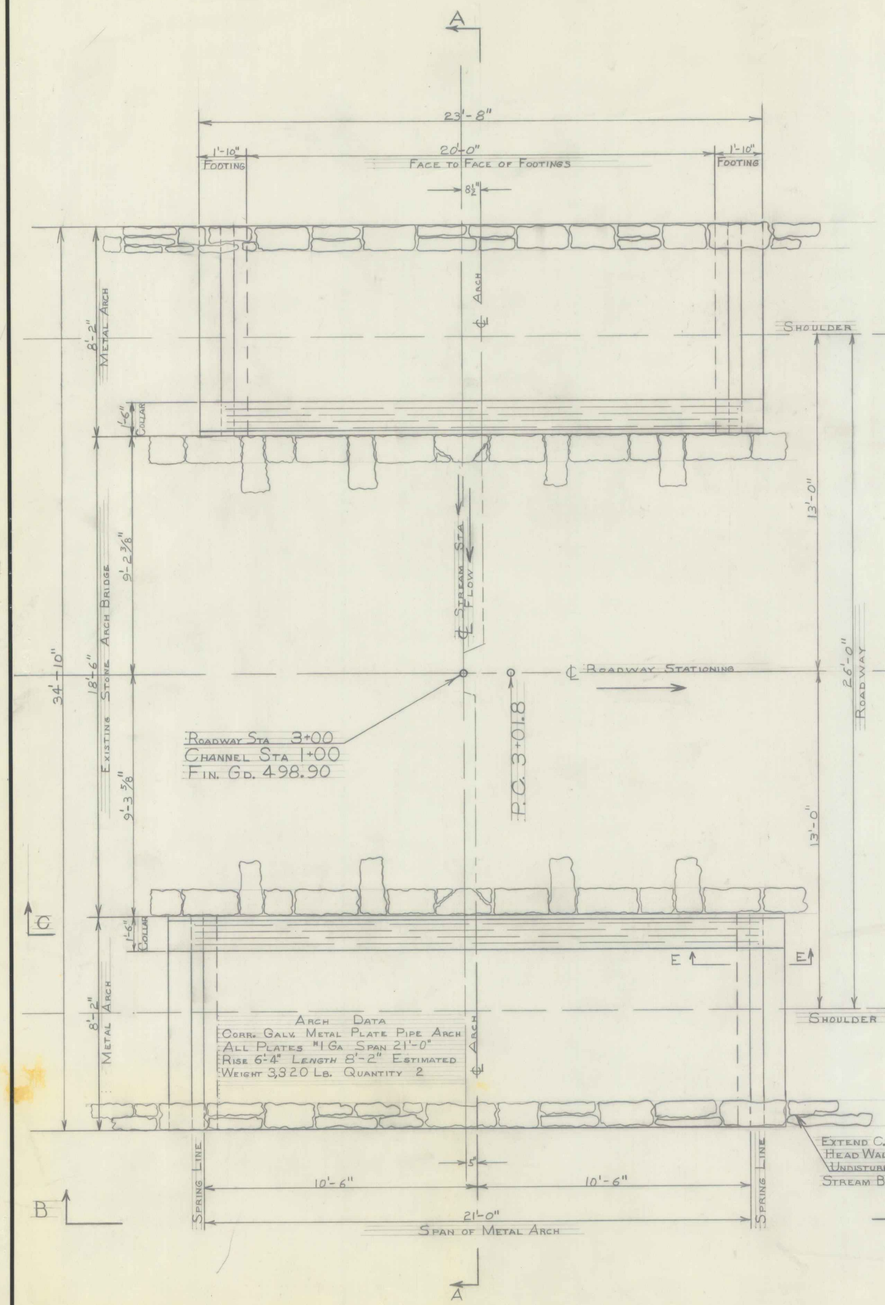


	LIST OF SHEETS (BR. ONLY)
SHEET 1 OF 10	PLAN AND PROFILE
2 & 3 OF 10	DETAILS OF CORR. GALV. METAL PLATE PIPE ARCHES
4 OF 10	REINFORCING STEEL QUANTITIES AND DETAILS
5 OF 10	EARTHWORK SHEET
6 OF 10	BARRICADES SIGNS AND LIGHTS STANDARD SB-11
7 OF 10	CABLE GUARD RAIL STANDARD S-30 ITEM 80-A
8 & 9 OF 10	ROADWAY SECTIONS
10 OF 10	CHANNEL SECTIONS

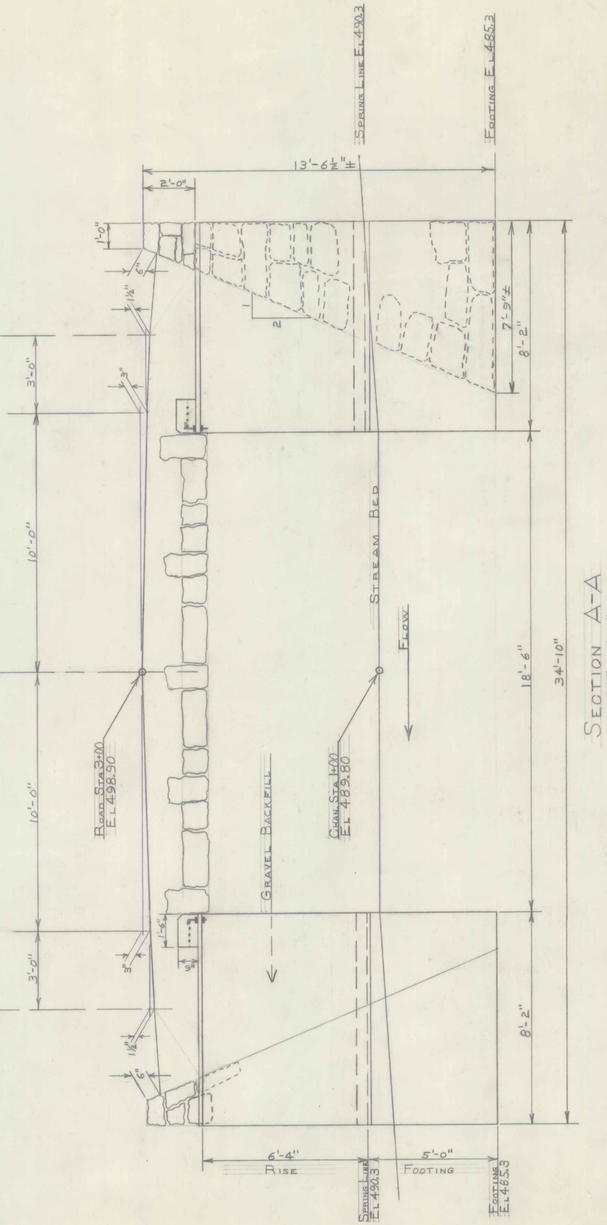
APPROVED
DISTRICT E
CORRECT
BRIDGE EN
APPROVED
CHIEF EN

PROJECT Townshend
NUMBER S.A.-17-1953 LENGTH MI.
TYPE C.G.M.P.P.A. Extension
CONTRACTOR
YEAR 19
LOCATION S.A.-Rd. #1 ~ Bridge #4

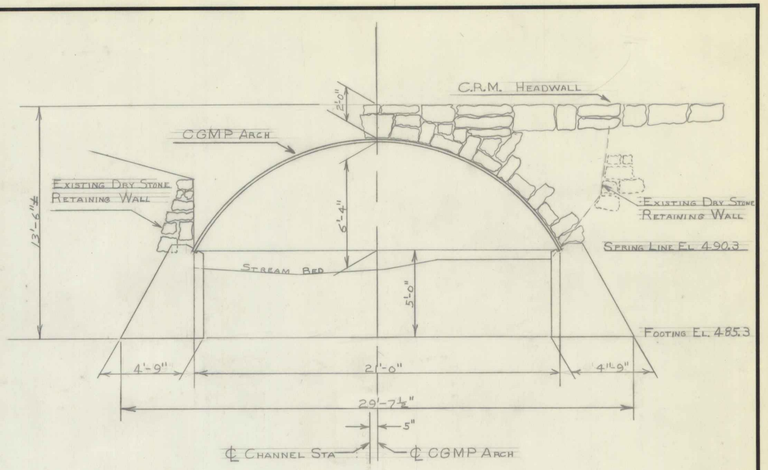
Pagar Bjorn 9/30/53 7/18/54



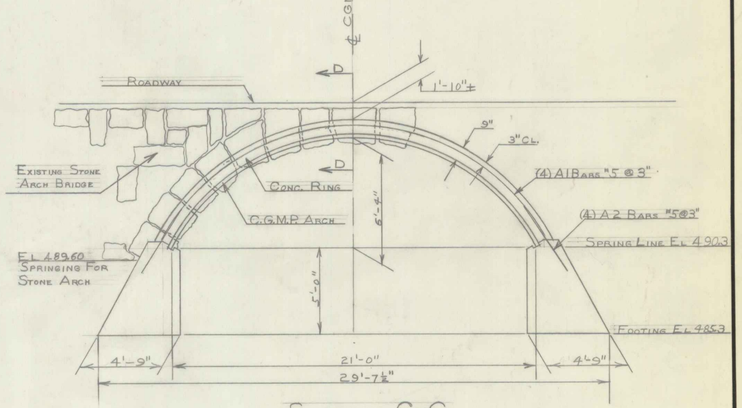
PLAN
3/8" = 1'-0"



SECTION A-A
3/8" = 1'-0"



SECTION B-B
1/4" = 1'-0"

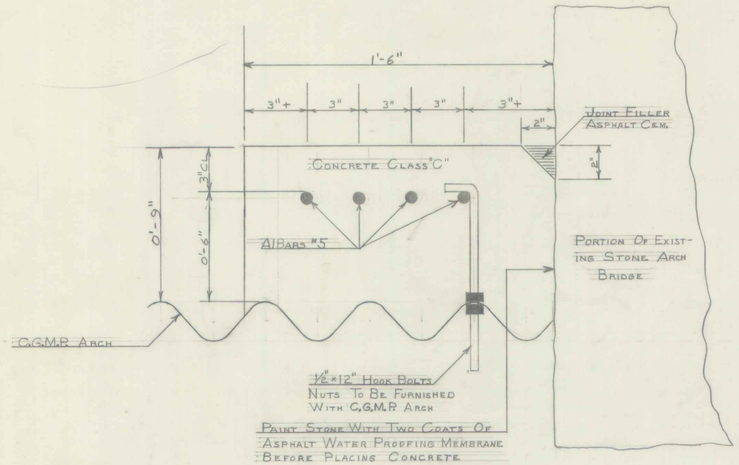


SECTION C-C
1/4" = 1'-0"

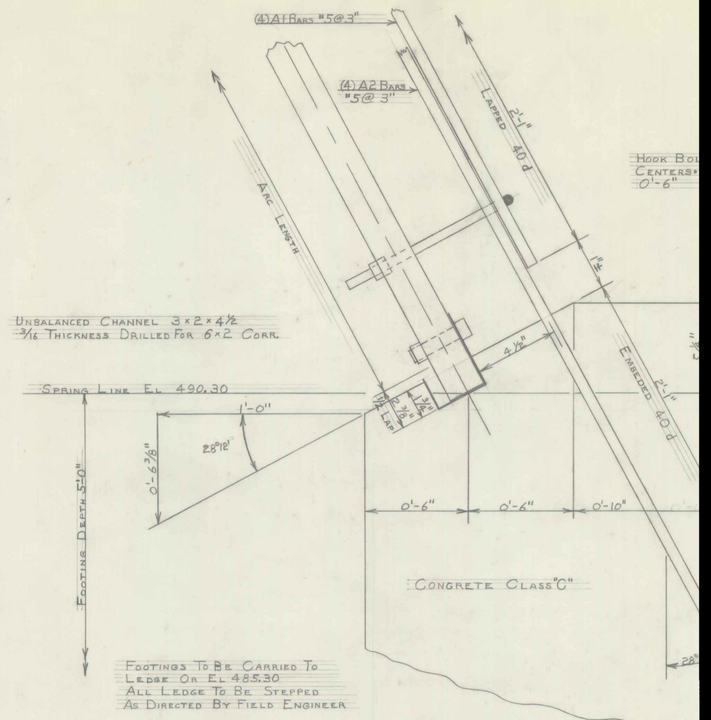
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF TOWNSHEND
ROAD NO. I BRIDGE NO. 4
CORR GALV METAL PLATE PIPE ARCH
EXTENSION OF EXISTING STONE ARCH
SCALE AS NOTED
SURVEYED BY POGAR
DRAWN BY MLJ CHECKED BY RBM
PROJECT NO. SA17-1953
SHEET 2 OF 10

K+E PHOENIX N166 TRACING CLOTH B. L. M. INC. 4216



SECTION D-D
REINFORCED CONCRETE RING
3" = 1'-0"



SECTION E-E
DETAIL OF CONCRETE
3" = 1'-0"

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION
4290	"I Ga. Corr. Galv. Metal Plate Pipe Arch
4010	Concrete Class "C"
107	Structure Excavation (Mod)
110	Cutting & Removing Trees
411	Cement Rubble Masonry
574	Preparing Superstructure For Widening
222	Gravel Backfill
402	Reinforcing Steel
542	Two Cable Guard Rail
201-A	Sub Base Of Gravel - Bridge Only
106-C	Unclassified Channel Excavation

PHOENIX N186 B. L. M. INC.

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
1																	
2																	
3																	
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5																	
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Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82																	
83																	
84																	
85																	
86																	
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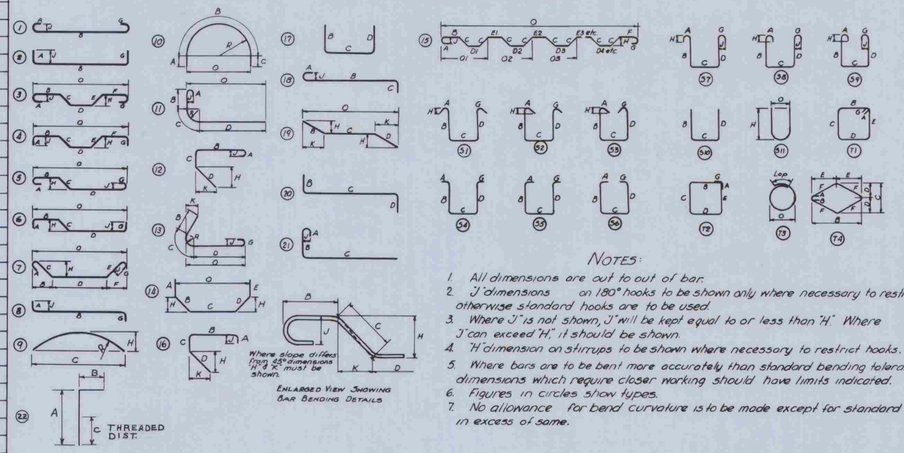
TYPICAL BAR BENDS



NOTES:

1. All dimensions are out to out of bar.
2. "J" dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used.
3. Where "J" is not shown, "J" will be kept equal to or less than "H." Where "J" can exceed "H," it should be shown.
4. "H" dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances, bending dimensions which require closer working should have limits indicated.
6. Figures in circles show types.
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163				CONCRETE COLLARS													
164																	
165	8	5	26'-8"	A1	STRAIGHT — BEND IN FIELD												
166	*17	5	4'-4"	A2	STRAIGHT — BEND IN FIELD												
167	*99	4	1'-0"	HOOK BOLTS		22	10½	1½"	5"								
168																	
169																	
170																	
171																	
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190																	

* DENOTES ONE EXTRA BAR FOR TESTING

8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or it's latest revision. All bars shall be deformed to conform with A.S.T.M. Specifications A 305-49.



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
¼"ϕ	#2
⅜"ϕ	#3
½"ϕ	#4
⅝"ϕ	#5
¾"ϕ	#6
⅞"ϕ	#7
1"ϕ	#8
1"□	#9
1⅛"□	#10
1¼"□	#11

ESTIMATED QUANTITIES

Location	Pounds
CONCRETE COLLAR	366

TOWNSHEND SA17-1953

Surveyed by POGAR
Designed by MLJ
Drawn by
Traced by
Checked by A.B.M.
Series No. Filed
Sheet 4 of 10 Sheets

PRINTED BY STARLING-BURGESS CO., BOSTON, MASS. RE-ORDER NO. D-833

EARTHWORK

GRADES							TOTAL EXCAVATION EARTH AND ROCK				EMBANKMENT		BASE	
V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V. C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS	AREA	CU. YDS.

CARRIED FORWARD

COLUMN FOOTINGS

EARTHWORK

GRADES							TOTAL EXCAVATION EARTH AND ROCK				EMBANKMENT		BASE	
V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V. C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
		UNCLASSIFIED CHANNEL EXCAVATION & STRUCTURE EXCAVATION												
							UNC. CHAN. EX		STRUCT. EX.					
		STATION				DIST.	AREA	C. Y.	AREA	C. Y.				
		0+70					0							
		0+80				10	7	1						
		0+81.5				1.5	7	1	143					
		0+90.8				9.3			143	49				
		1+09.3							135					
		1+18.5				9.2	3		135	46				
		1+20				1.5	3	0						
		1+28				8	0	1						
								3		95				
		TOTALS												
			ITEM 106C UNC. CHANNEL EXCAV 3 C.Y.											
			ITEM 107 STRUCTURE EXCAV (MOD) 95 C.Y.											

CARRIED FORWARD

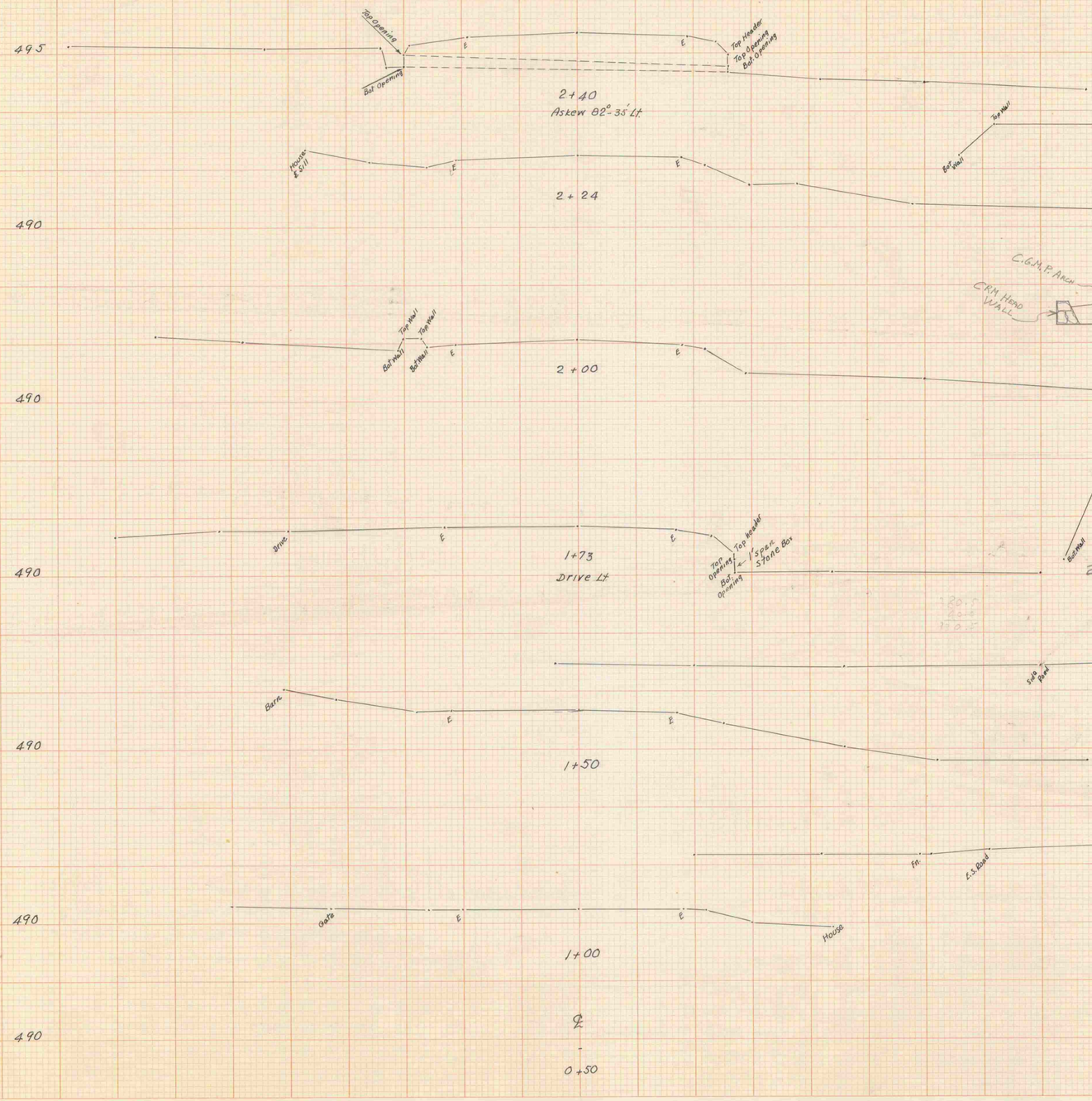
COLUMN FOOTINGS

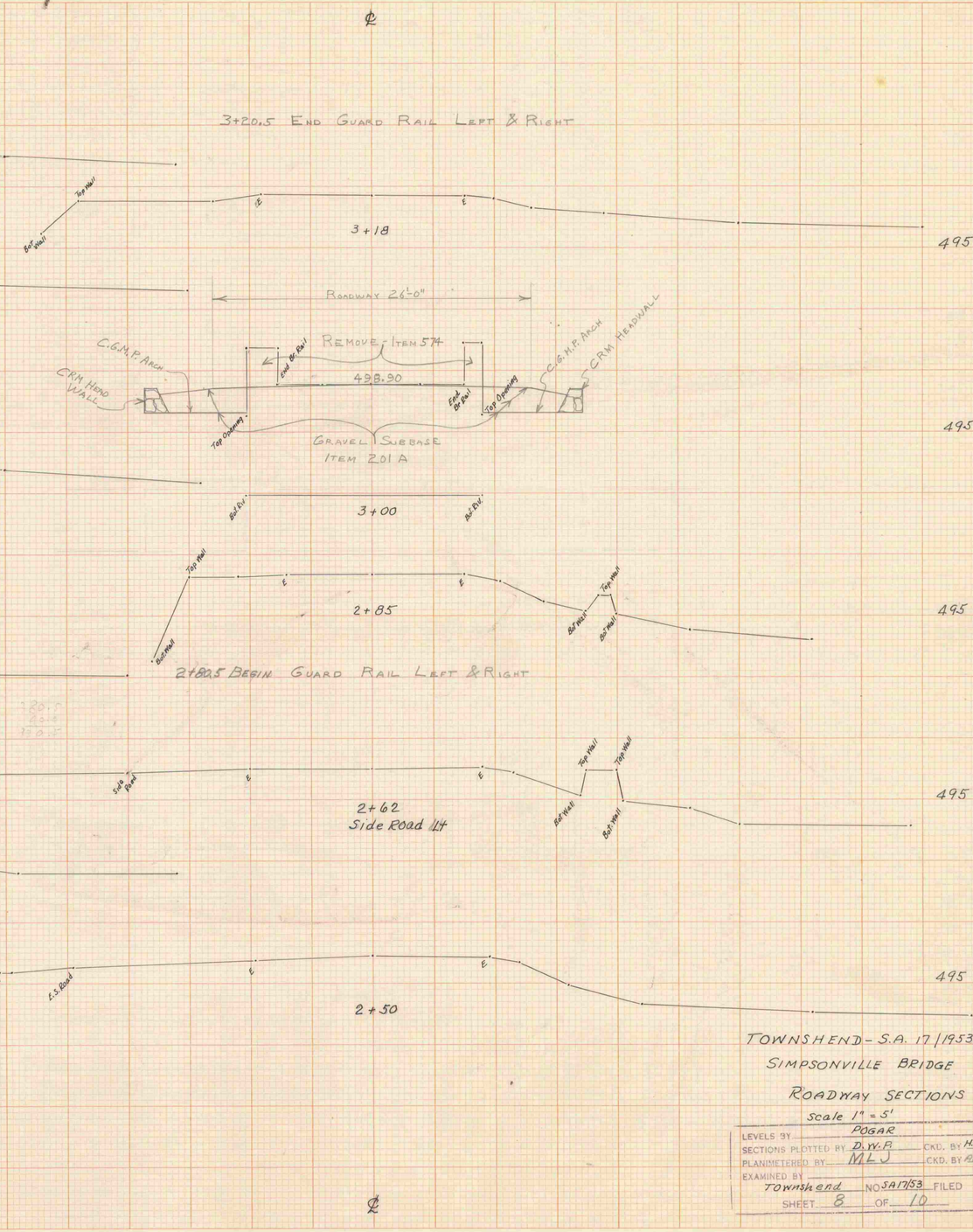
EARTHWORK SUMMARY

STATION	TO STATION	SUMMARY OF BA... TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	C...

SHEET NO.	COL. NO.	SUMMARY BY COLUMNS			
		EXCAVATION		EMBANKMENT	
		TOTAL CU. YDS	ROCK CU. YDS.	CUBIC YARDS	C...

PROJECT





TOWNSHEND - S.A. 17/1953

SIMPSONVILLE BRIDGE

ROADWAY SECTIONS

Scale 1" = 5'

LEVELS BY	POGAR
SECTIONS PLOTTED BY	D.W.P. CKD. BY H.R.C.
PLANIMETERED BY	M.L.J. CKD. BY A.P.W.
EXAMINED BY	

Townshend NO SA 17/53 FILED

SHEET 8 OF 10

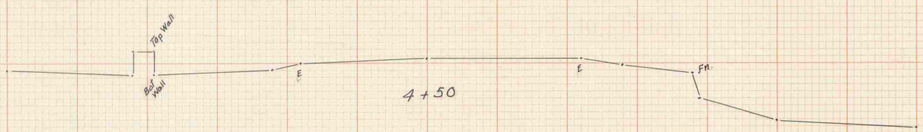
TRADE STANDARD MARK REG. U.S. PAT. OFF. CROSS SECTION 10 X 10 100% RAG PAPER KEUFFEL & ESSER CO. NEW YORK

℄



5+00

500 500



4+50

495 495



4+00

495 495



3+80

495 495



3+50

495 495

℄

TOWNSHEND – S.A. 17/1953
SIMPSONVILLE BRIDGE

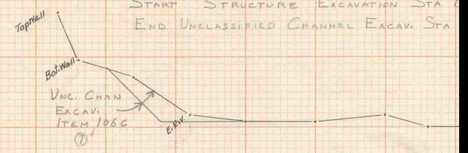
ROADWAY SECTIONS
Scale 1" = 5'

LEVELS BY POGAR
SECTIONS PLOTTED BY D.W.P. CKD. BY H.R.C.
PLANIMETERED BY M.L.J. CKD. BY R.B.M.
EXAMINED BY
TOWNSHEND NO S.A.17/53 FILED
SHEET 9 OF 10

KEUFFEL & ESSER CO. NEW YORK
KEUFFEL & ESSER CO. NEW YORK

℄

START STRUCTURE EXCAVATION STA
END UNCLASSIFIED CHANNEL EXCAV. STA



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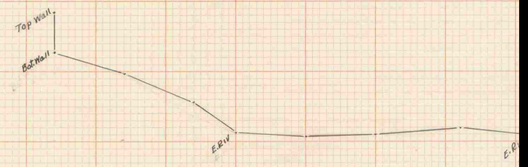

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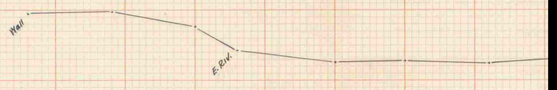
START UNCLASSIFIED CHANNEL EXC



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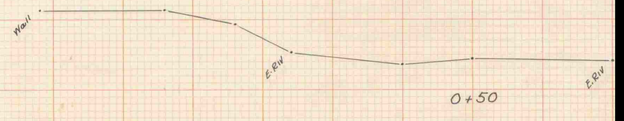

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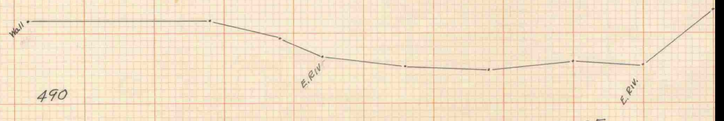

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STANDARD
CROSS SECTION 10 X 10

VERMONT AGENCY OF
TRANSPORTATION
PHASE III-INTERSTATE

HANGER 4286

Bridge
1953

Townshand
SA-17-1953

1953