

TOWN OF VERNON, CONNECTICUT
ADDENDUM NO. 1
CONTRACT #2140
REPAIR AND RESURFACING OF BRIDGE No. 05240
KELLY ROAD OVER THE HOCKANUM RIVER

Bid Opening: Thursday May 14, 2024
@ 11:00 AM

All bidders are hereby advised of the following amendments to the Contract Bid Documents which are hereby an integral part of the specifications for the subject project, prepared by Cardinal Engineering Associates, Inc., Meriden, Connecticut, to the same extent as all other documents.

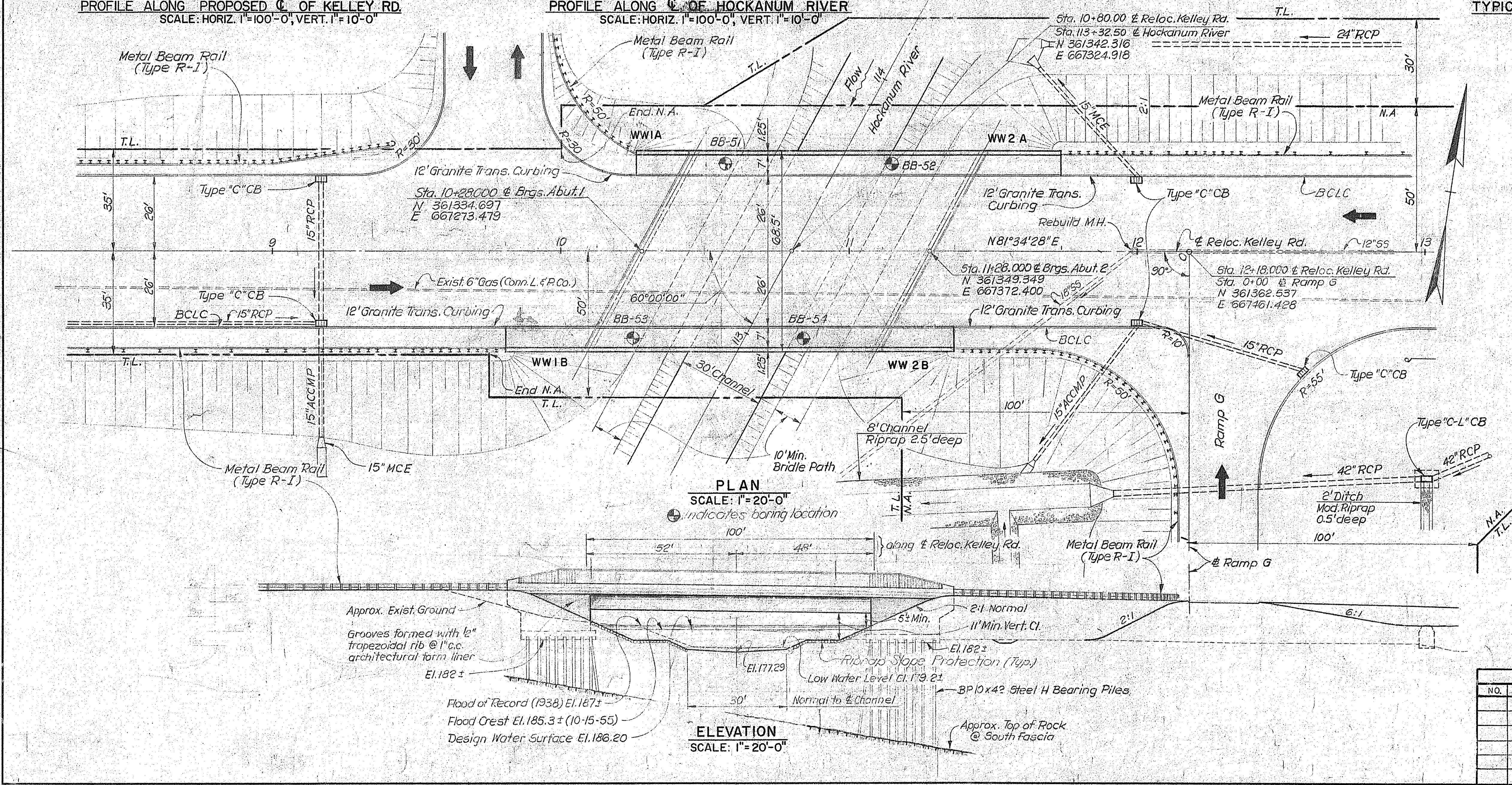
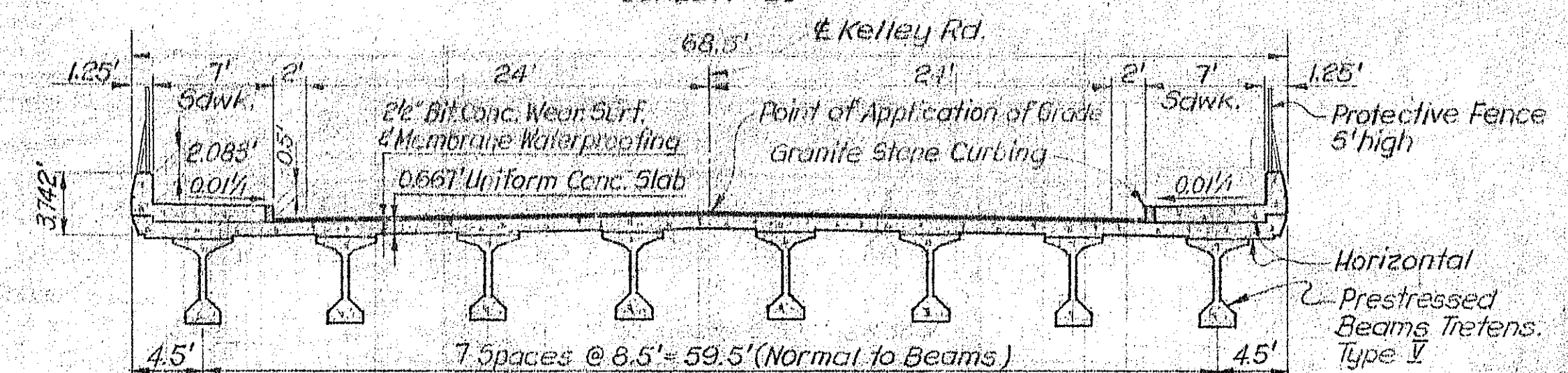
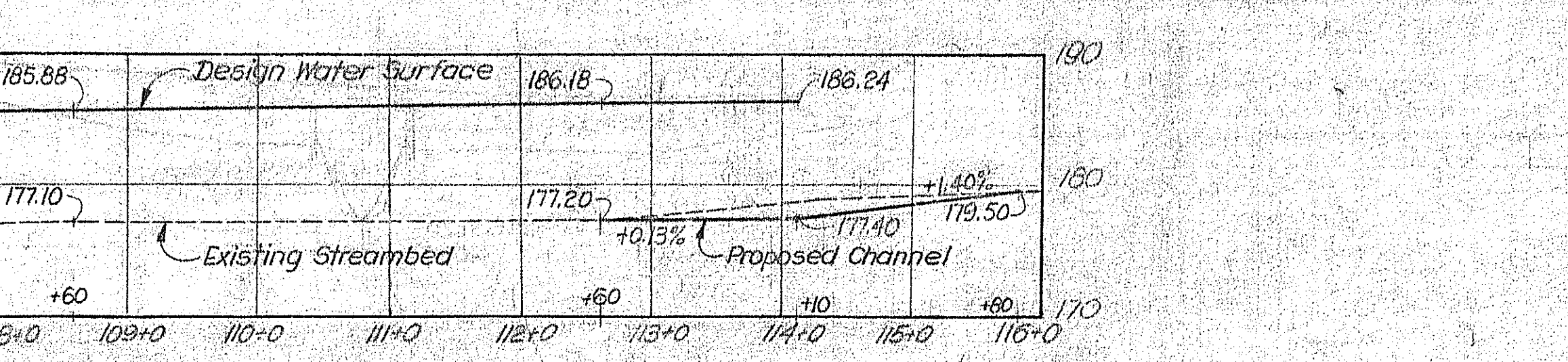
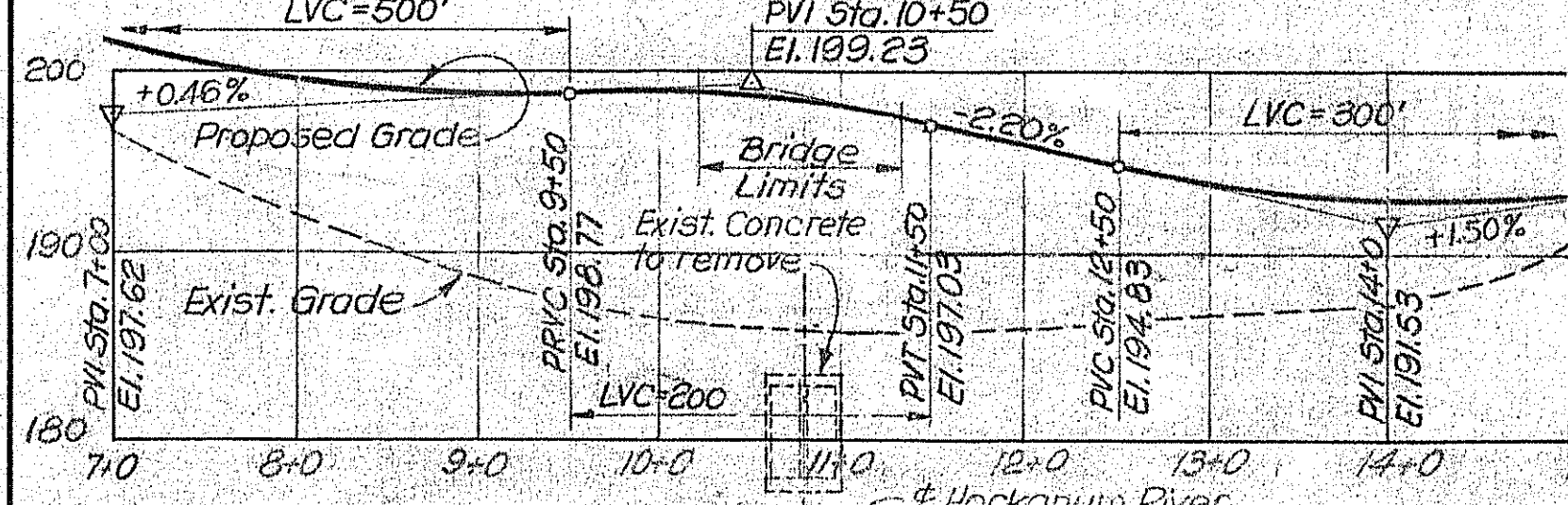
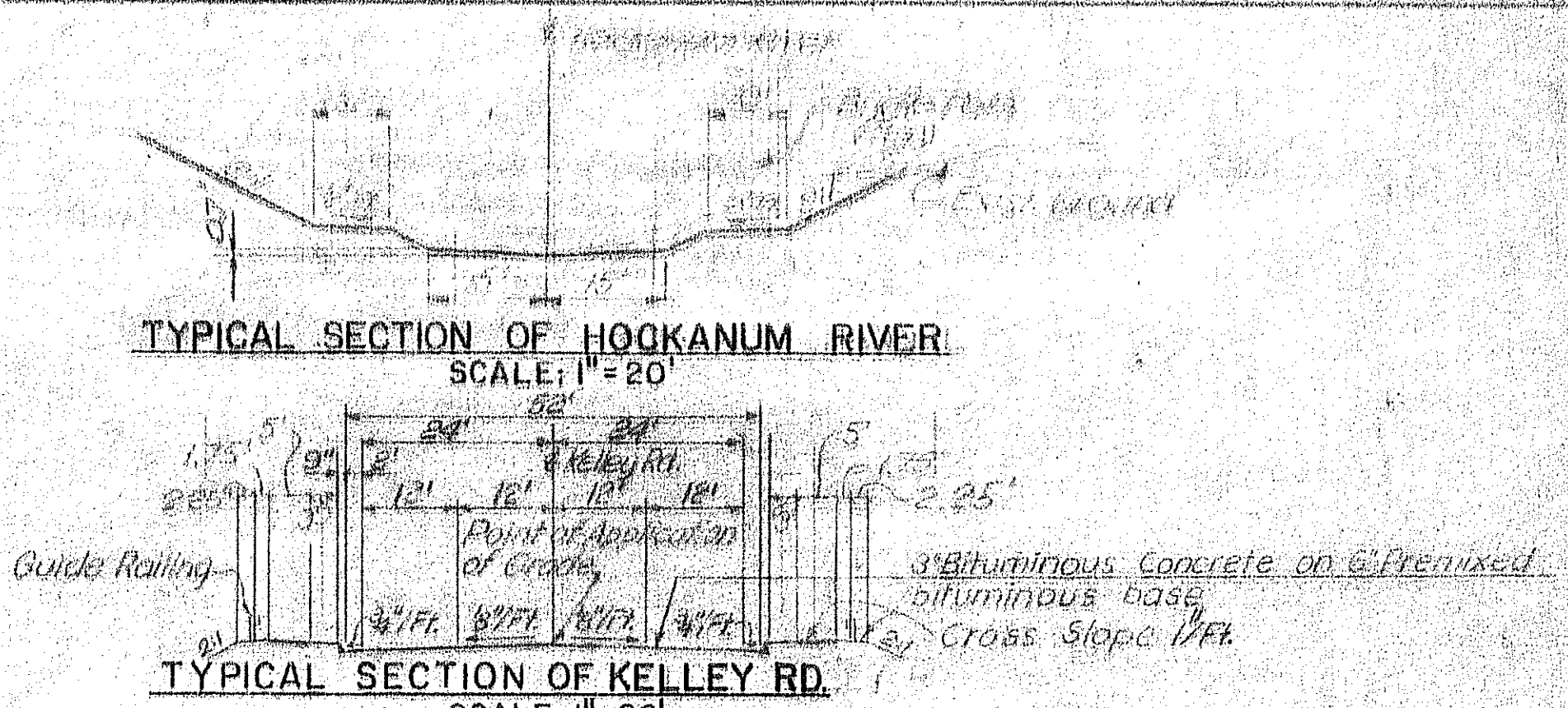
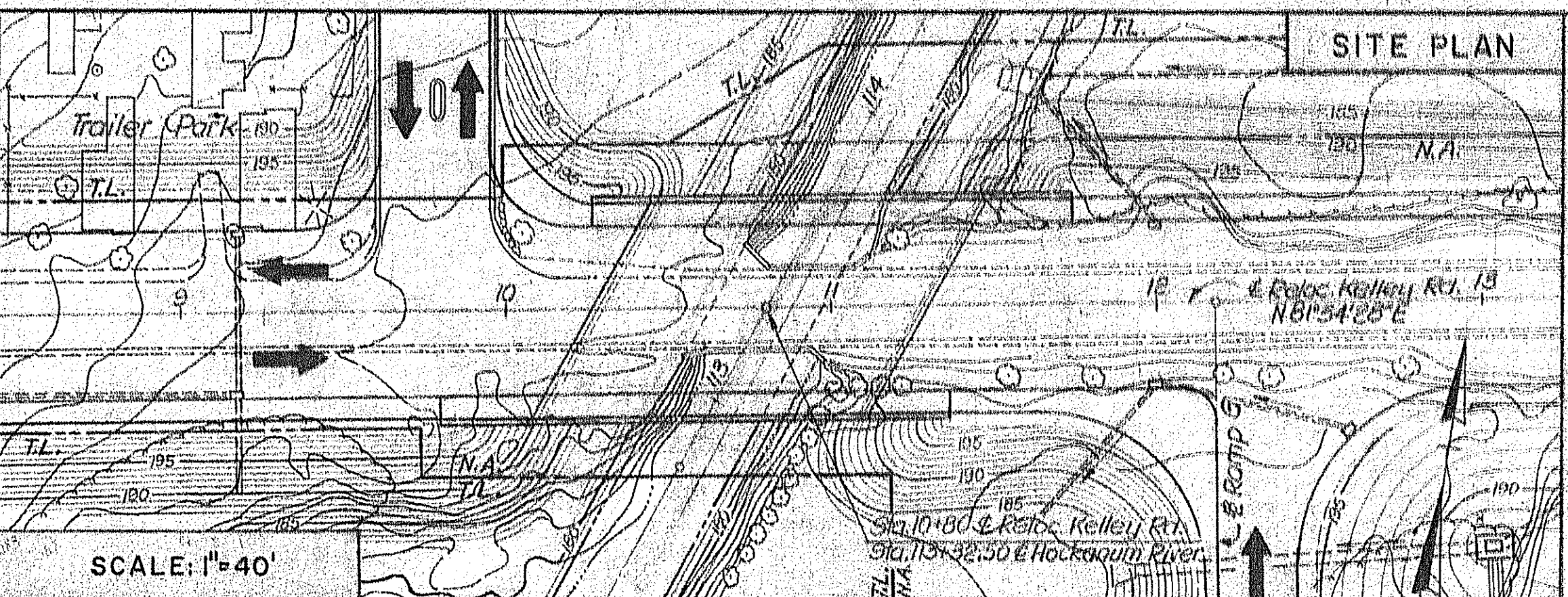
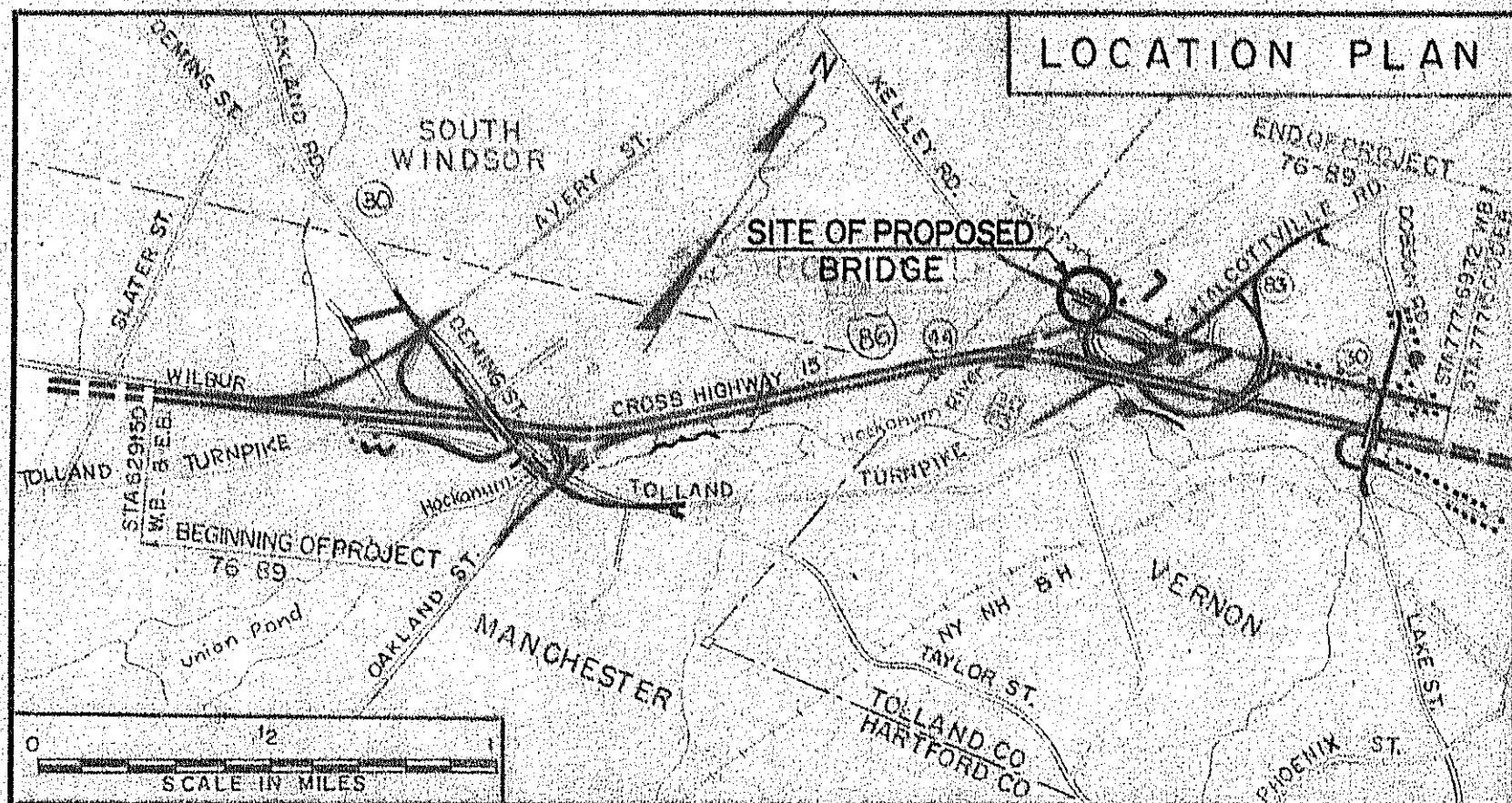
Bids submitted shall be deemed to include the Contract Documents information as shown in this Addendum. General bidders shall notify sub-bidders that may be affected by this Addendum as applicable. Failure by the Bidder to incorporate this Addendum may result in a rejection of the bid. Bidders are directed to review changes to all portions of the work as changes to one portion may affect the work of another.

I. PROJECT MANUAL

- a. Add Appendix C – Existing Bridge Plans. Construction plans for the existing bridge are included for bidders' information.

***THE BIDDER MUST ACKNOWLEDGE THAT THE BID INCLUDES THIS
ADDENDUM AT THE BOTTOM OF SCHEDULE OF PRICES***

APPENDIX C



GENERAL NOTES:

Specifications: Connecticut State Highway Department Form 610 (1969), Interim Specifications and Special Provisions.

Design Specifications: Standard Specifications for Highway Bridges (AASHTO-1969) with the Interim Specifications up to and including (1972) as supplemented by the Connecticut State Highway Department Bridge Manual (1961).

Allowable Design Stresses:
Class "A" and Class "F" Concrete $f_c = 1200$ psi
Reinforcement (A615 Grade 40) $f_s = 18,000$ psi
Prestressed Concrete I-beams: Materials and construction for Prestressed Concrete shall conform to the requirements of the Special Provisions.

Live Load: HS 20-44

Future Paving Allowance: None

Composite Construction: No temporary intermediate supports shall be used prior to and during the pouring and setting of the concrete deck slab. Live and superimposed dead loads will be permitted when directed by the Engineer but not less than 10 days after the slab has been poured.

Proposed Structure:
Superstructure: Single simple, prestressed concrete span, composite for live loads only.
Substructure: Cantilever type abutments of reinforced concrete.
Slab: Reinforced concrete railing - reinforced concrete barrier type with superimposed pipe rail.

Borings and Soils: Borings as shown on P.D. Sheet #2. Soils Report accompanies P.D. Sheet.
Allowable max. design pile load: 5.5T (pile - Group I loading)
Waterway Area: 471 SF.

Hydraulic Design Criteria: $Q = 3200$ cfs $V = 8.24$ f/sec.

Utilities: To be provided for in the final design.

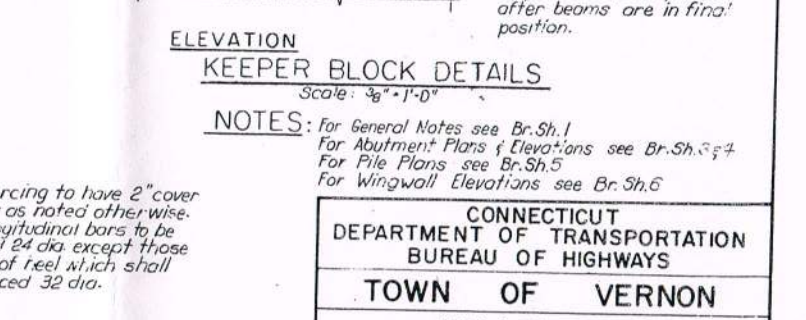
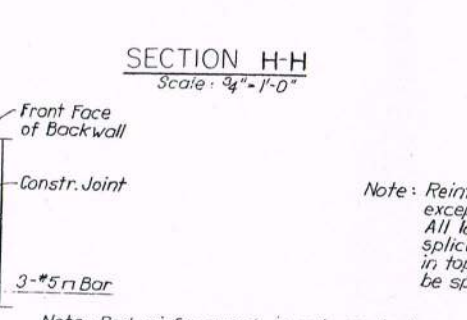
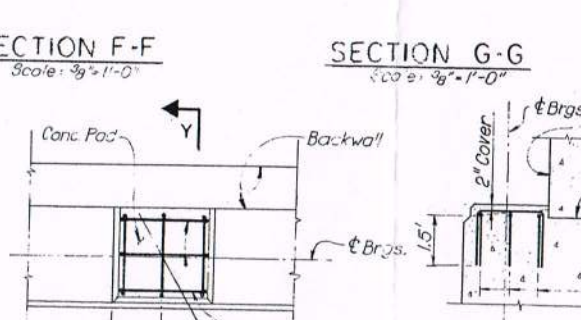
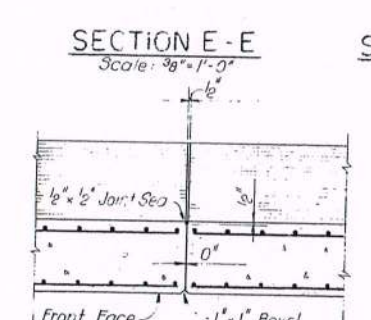
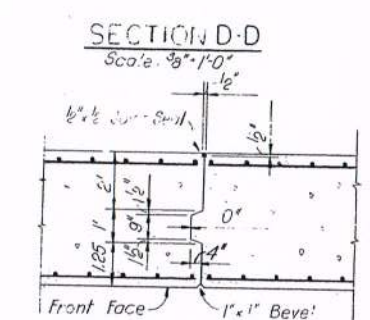
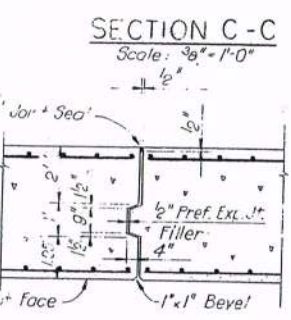
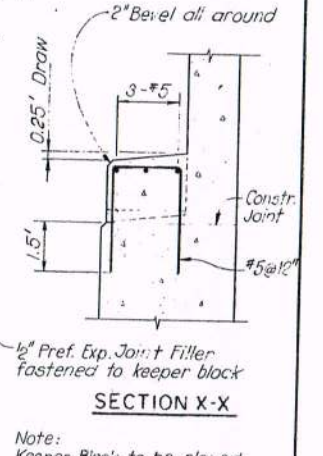
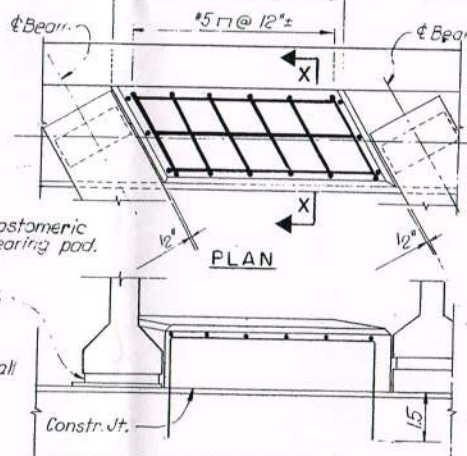
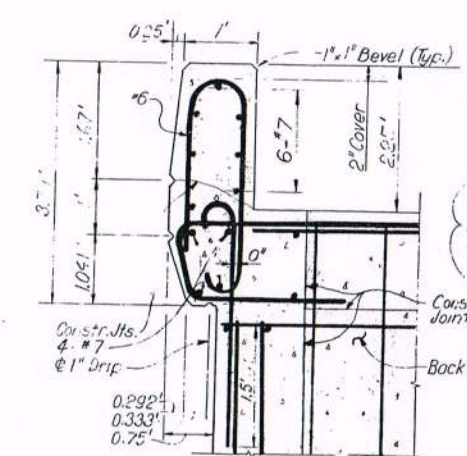
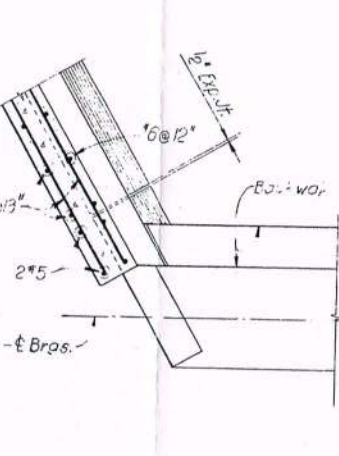
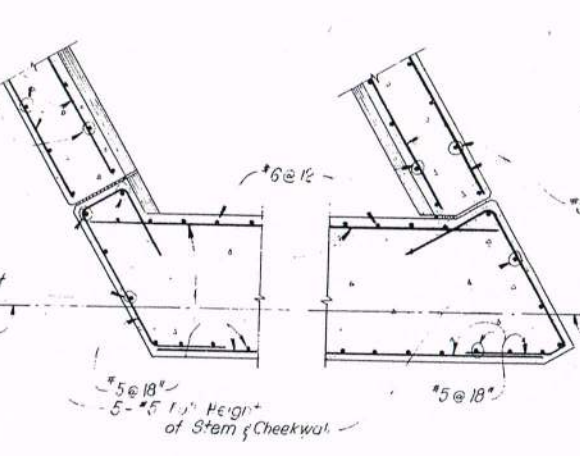
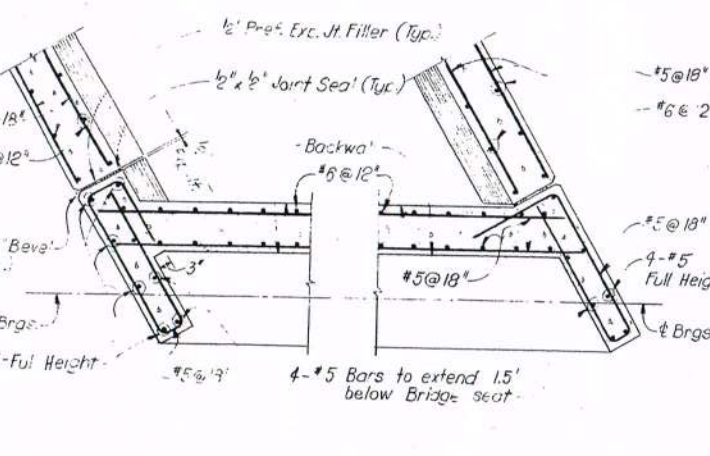
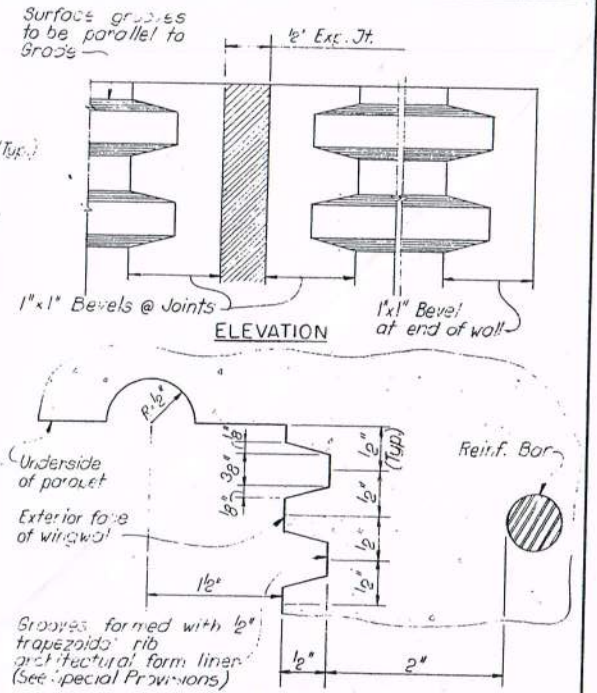
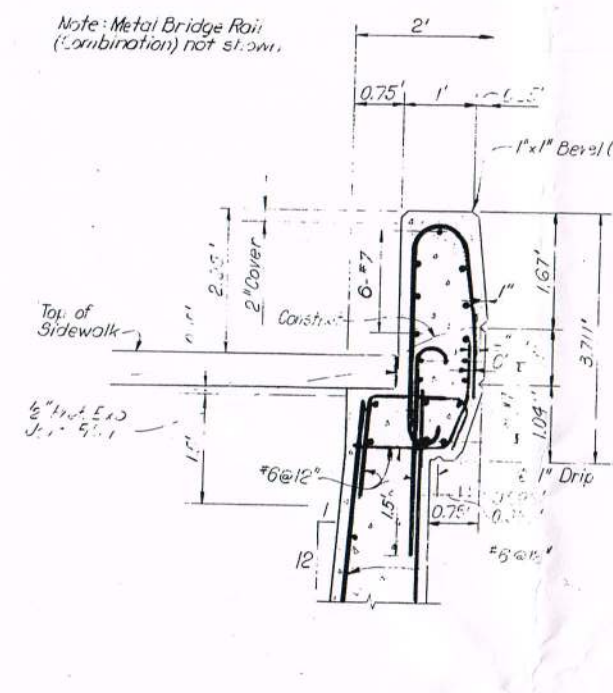
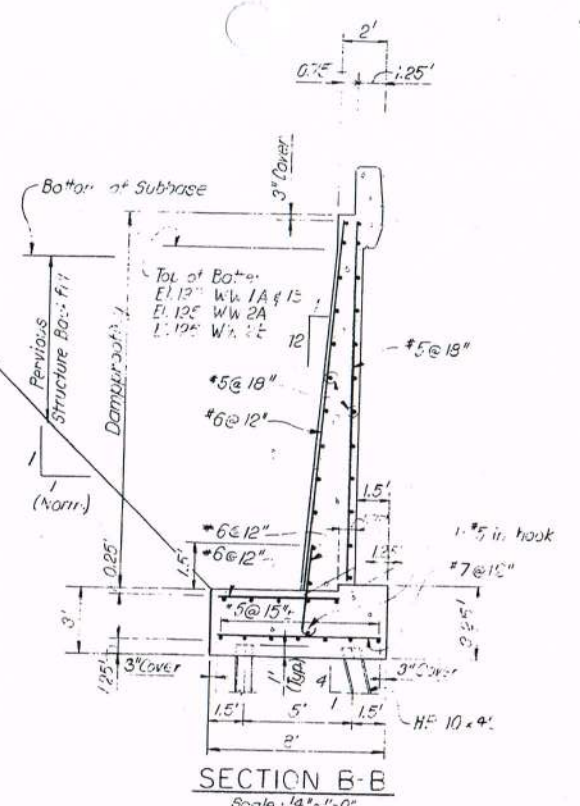
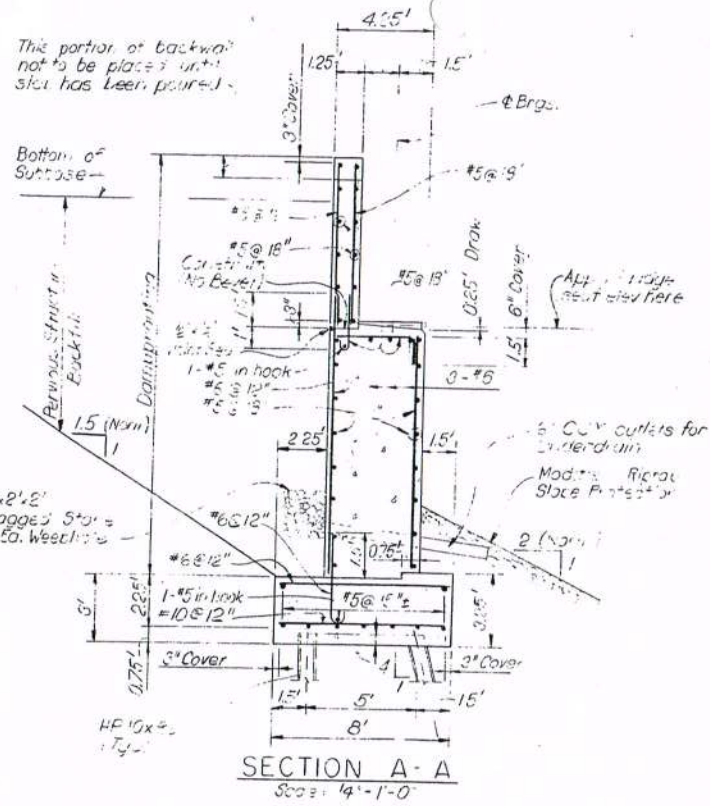
CONNECTICUT STATE HIGHWAY DEPARTMENT
PRELIMINARY LAYOUT AND DESIGN
TOWN OF VERNON
KELLEY ROAD OVER HOCKANUM RIVER
BRIDGE 76-89-8

REVISIONS		NO.	DATE	DESCRIPTION
NO.	DATE			

DESIGNED BY: FRANKLAND & LIENHARD CONSULTING ENGINEERS

SCALES: As noted	PROJECT NO. 76-89
MADE BY: A.K.	DATE: _____
APPROVED: _____	DATE: _____
	P.D. NO. _____

This portion of backwall not to be placed until slab has been poured.



EXPANSION (IN STEM)

CONTRACTION (IN STEM)

CONTRACTION (IN WINGWALL)

BEARING PAD REINFORCING DETAILS

KEEPER BLOCK DETAILS

NOTES: For General Notes see Br. Sh. 1
For Abutment Plans & Elevations see Br. Sh. 3 & 4
For Pier Plans see Br. Sh. 5
For Wingwall Elevations see Br. Sh. 6

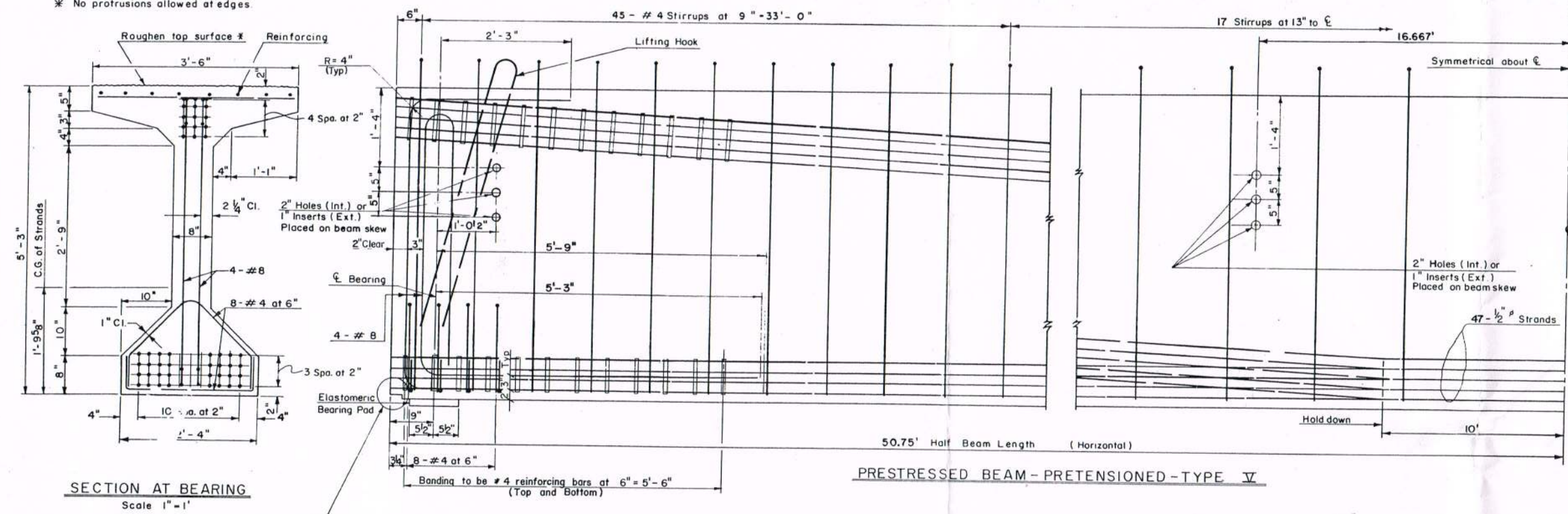
REVISIONS		
NO.	DATE	DESCRIPTION

DESIGNED BY FRANKLAND & LIENHARD CONSULTING ENGINEERS		
SCALES As shown	PROJECT NO 76-89	BRIDGE SHEET NO 7 OF 17
MADE BY J.Z.	DATE 8-20-79	
CHECKED BY I.S.	DATE 3-30-79	
APPROVED S.J.	DATE 3-30-79	

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Keys to extend from top of footing to within 1'-0" of the bridge seat. No reinforcement shall pass through expansion or contraction joints. Reinforcement shall pass through construction joints.

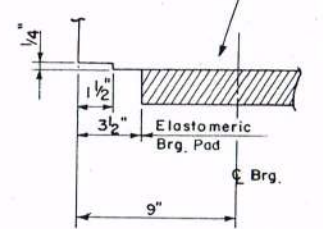
* No protrusions allowed at edges



SECTION AT BEARING
Scale 1" = 1'

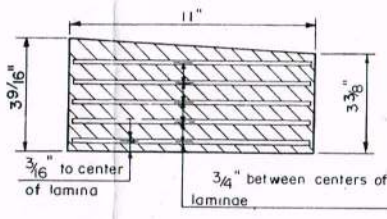
SECTION AT C BEAM
Scale 1" = 1'

PRESTRESSED BEAM - PRETENSIONED - TYPE V

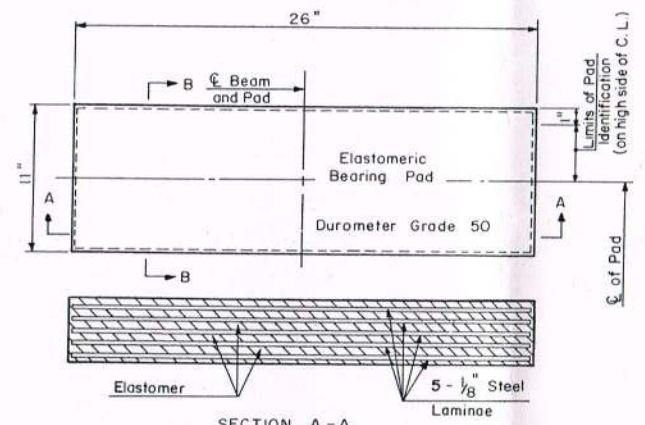


Stringer No.	Estimated Camber (Ft.)	Total Dead Load Defl. Excluding Beam Wt. (Ft.)	Residual Camber (Ft.)	Elastomeric Bearing Pad D.L. Deflection (feet)
AI-1	.097	.082	.015	.006
AI-2	.097	.096	.001	.007
AI-3	.097	.096	.001	.007
AI-4	.097	.096	.001	.007
AI-5	.097	.096	.001	.007
AI-6	.097	.096	.001	.007
AI-7	.097	.096	.001	.007
AI-8	.097	.082	.015	.006

Estimated Camber = Deflection due to P_c minus deflection due to weight of beam.



SECTION B-B
Not to Scale



SECTION A-A
Not to Scale

ELASTOMERIC BEARING PAD
TYPE EBP5-4A

NOTES

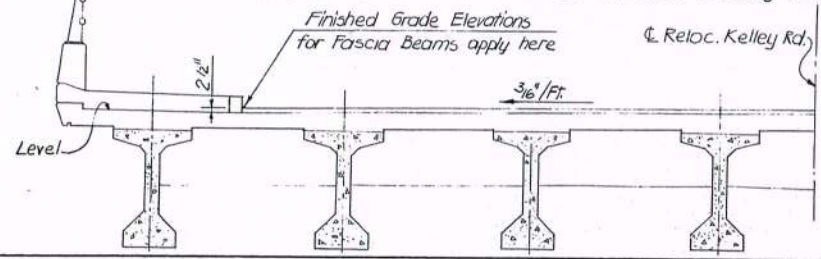
Prestressed Beams
Prestressed beams shall conform to the following requirements:
 $f'_c = 5500$ psi
 $f_{ci} = 4250$ psi
Prestressed strands shall conform to the following requirements:
Ultimate Strength (f'_s) = 270,000 psi
Jacking Tension (F_j) = 31,000 lbs per strand
Ends of beams shall be vertical after application of full dead load.
The drilling of holes in prestressed beams, or the use of power actuated tools on prestressed beams will not be permitted.
Prestressing strands shall have 1 1/2" min. cover.

Elastomeric Bearing Pads
The contractor shall set the elastomeric bearing pads on a prepared surface as required by Article 6.01.03-14.
See Special Provisions for tolerances governing laminae dimensions.

* FINISHED GRADE ELEVATIONS

Beam description	C. Bearing Abut. 1	10 Intervals @ 10' = 100'										C. Bearing Abut. 2
		1	2	3	4	5	6	7	8	9		
AI-1	198.199	198.112	198.012	197.898	197.771	197.630	197.477	197.310	197.129	196.936		196.729
AI-2	198.312	198.231	198.137	198.030	197.909	197.775	197.628	197.467	197.294	197.106		196.906
AI-3	198.479	198.405	198.317	198.217	198.103	197.975	197.834	197.681	197.513	197.333		197.139
AI-4	198.643	198.576	198.495	198.400	198.293	198.172	198.038	197.890	197.730	197.556		197.368
AI-5	198.672	198.610	198.536	198.448	198.347	198.233	198.105	197.964	197.810	197.643		197.462
AI-6	198.564	198.509	198.442	198.360	198.266	198.158	198.037	197.903	197.755	197.594		197.420
AI-7	198.453	198.405	198.344	198.269	198.181	198.080	197.965	197.837	197.696	197.542		197.374
AI-8	198.398	198.356	198.301	198.233	198.152	198.057	197.949	197.823	197.693	197.545		197.384

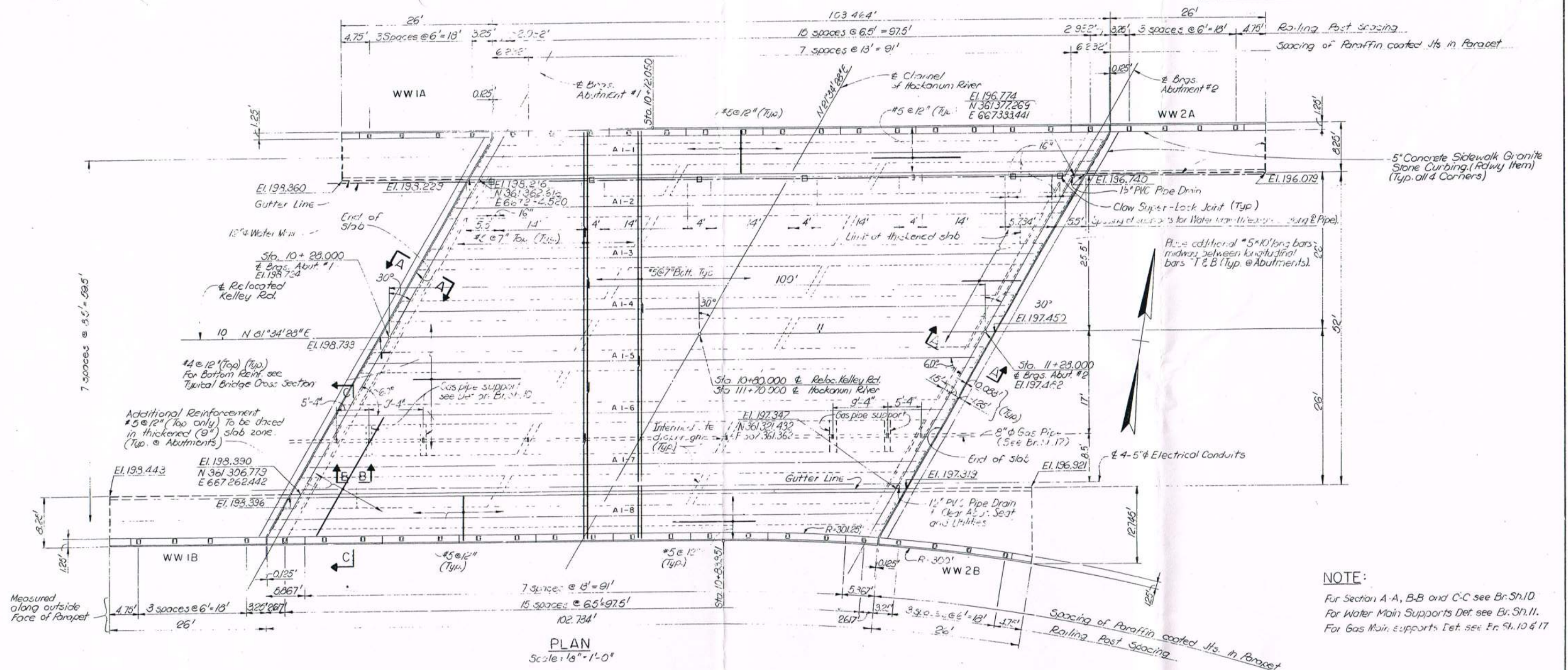
* Finished Grade Elevations apply at top of 2 1/2" Bituminous Concrete Wearing Surface



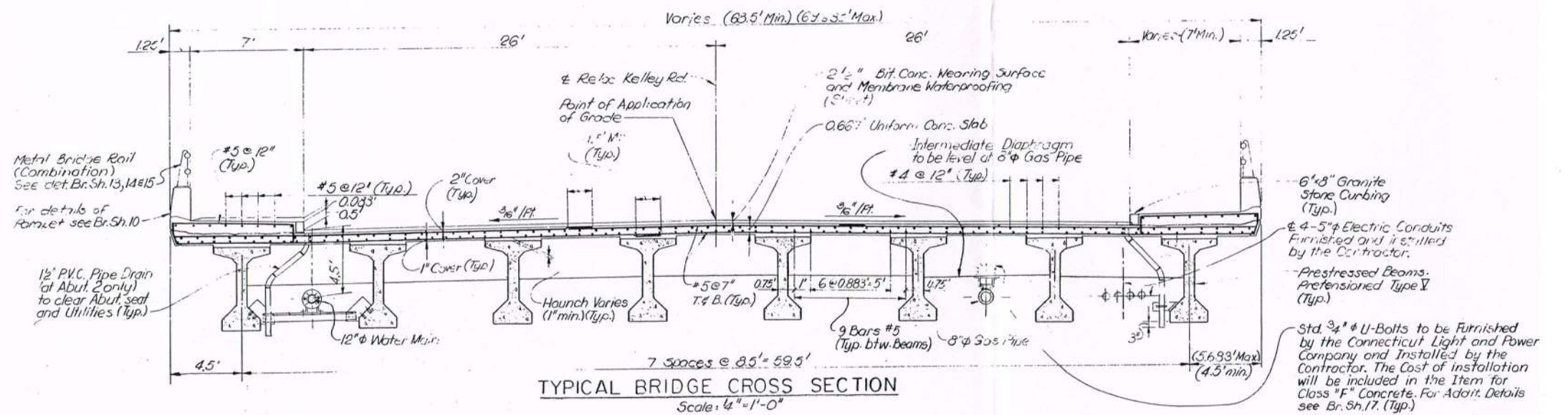
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

TOWN OF VERNON
KELLEY ROAD
OVER
HOCKANUM RIVER

PRESTRESSED BEAM - DETAILS			
ENGINEER		FRANKLAND & LIENHARD CONSULTING ENGINEERS	
APPROVED		S.J. DATE 3-30-78	
NO.	DATE	DESCRIPTION	DESIGNER
		DRAFTSMAN I.T.	CHECKER I.S.
REVISIONS		STRUCTURE NO. 76-89 B	STRUCTURE SHEET 8 OF 17



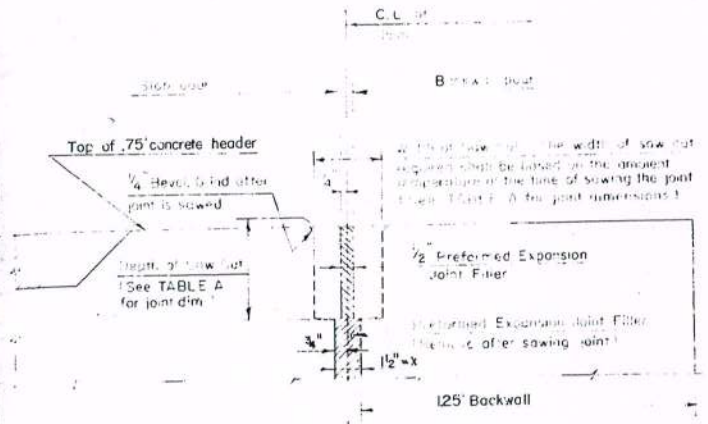
NOTE:
For Section A-A, B-B and C-C see Br. Sh. 10.
For Water Main Supports Det. see Br. Sh. 11.
For Gas Main supports Det. see Br. Sh. 10 & 17.



CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS TOWN OF VERNON KELLEY ROAD OVER HOCKANUM RIVER SLAB PLAN & CROSS SECTION		
DESIGNED BY FRANKLAND & LIENHARD CONSULTING ENGINEERS		
SCALES As shown MADE BY I.T. CHECKED BY L.S. APPROVED S.J.	DATE 8-31-73 DATE 3-30-78 DATE 3-30-78	PROJECT NO. 76-89 BRIDGE SHEET NO. 9 OF 17

REVISIONS		
NO.	DATE	DESCRIPTION

25' 1/2" Conc. Meas. Surv. Mem. Waterproofing (Woven Glass Fabric)

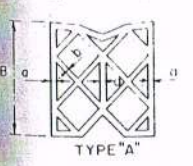


JOINT DETAIL
No Scale

Type	Joint Width (in)	Joint Depth (in)	Joint		Temperature		Elastomeric Compression Seal Type		Notes
			Width of Saw Cut	Depth of Saw Cut	Temp. at Time of Sawing	Temp. at Time of Installation	A	B	
Fixed	1/2"	1/2"	1/4"	1/4"	4	4	2 3/4"	2 3/4"	1/2"
Exp.	1/2"	1/2"	1/4"	1/4"	4	4	2 3/4"	2 3/4"	1/2"
Exp.	3/4"	1/2"	1/4"	1/4"	4	4	2 3/4"	2 3/4"	1/2"
Exp.	3/4"	1/2"	1/4"	1/4"	4	4	2 3/4"	2 3/4"	1/2"
Exp.	3/4"	1/2"	1/4"	1/4"	4	4	2 3/4"	2 3/4"	1/2"

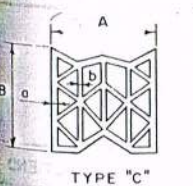
TABLE "A"

NOTE: Width of joint is important that the joint be constructed exactly as detailed. Saw cutting will be permitted 7 days after the final pour at the joint. The compression seal shall not be installed above temperatures at which the width of joint is cut from 60% of the nominal width of the seal.



Nom. Width	TYPE "A"		Thickness	
	A	H	a	b
2"	2.000" ± .188"	2.063" ± .125"	.125" ± .031"	.094" ± .031"
3"	3.000" ± .250"	3.406" ± .188"	.188" ± .047"	.125" ± .047"
4"	4.000" ± .313"	4.719" ± .250"	.250" ± .063"	.188" ± .063"

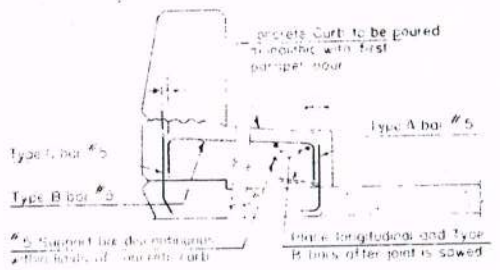
TYPE "A"



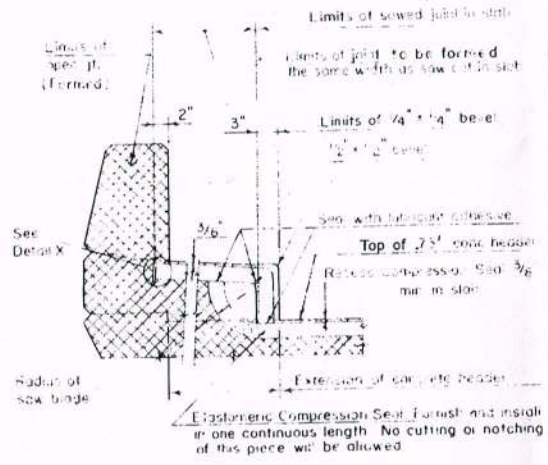
Nom. Width	TYPE "C"		Thickness	
	A	B	a	b
3"	3.000" ± .250"	3.000" ± .188"	.188" ± .047"	.125" ± .032"
4"	4.000" ± .313"	4.000" ± .250"	.250" ± .063"	.125" ± .047"

TYPE "C"

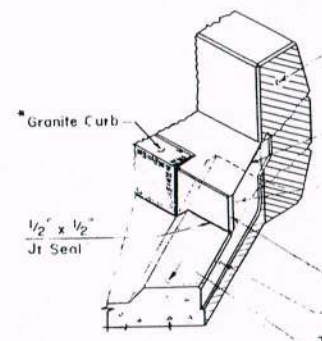
ELASTOMERIC COMPRESSION SEAL DETAILS



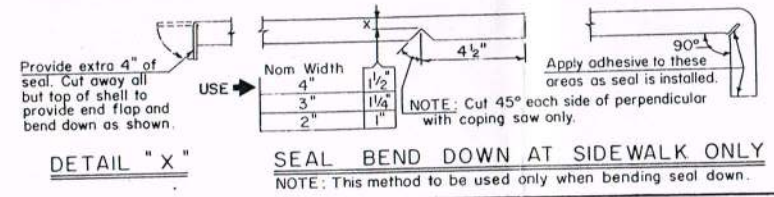
SECTION AT JOINT
No Scale



SECTION ALONG C.I. OF JOINT
No Scale

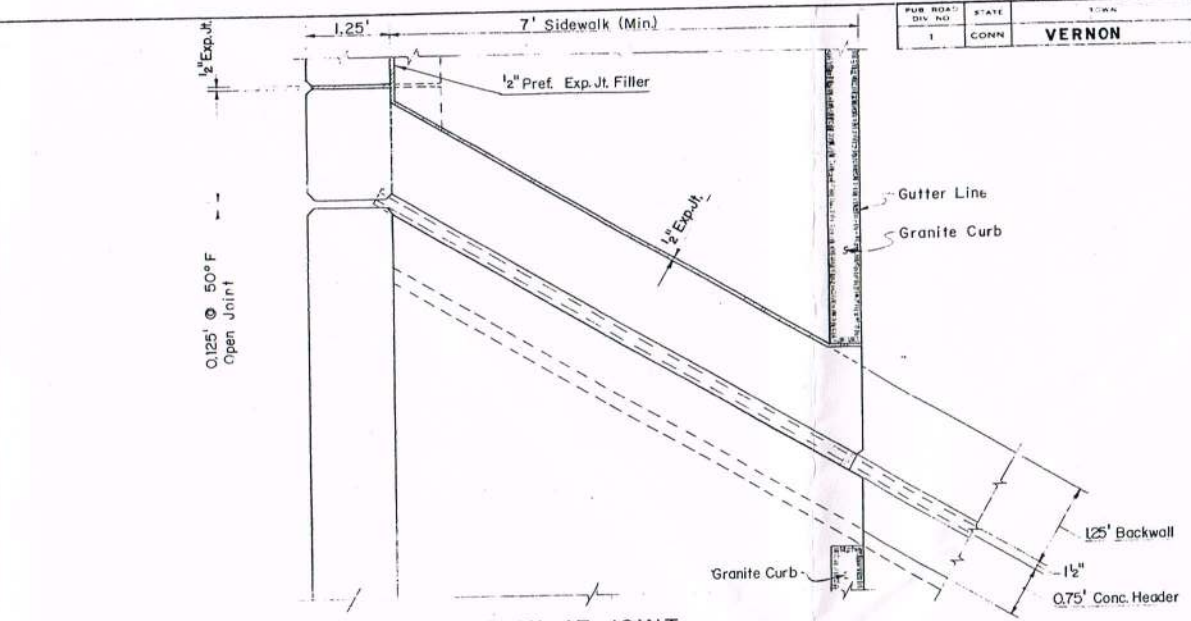


ISOMETRIC VIEW
For Information Only

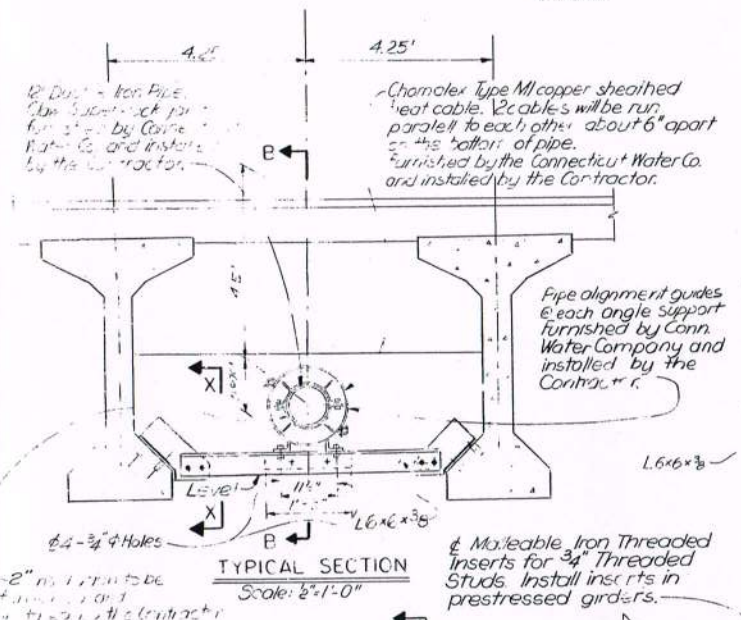


DETAIL "X"

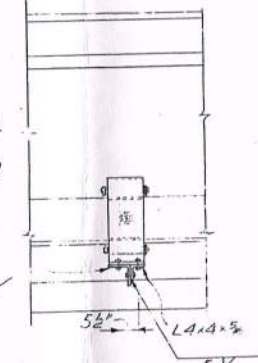
SEAL BEND DOWN AT SIDEWALK ONLY
NOTE: This method to be used only when bending seal down.



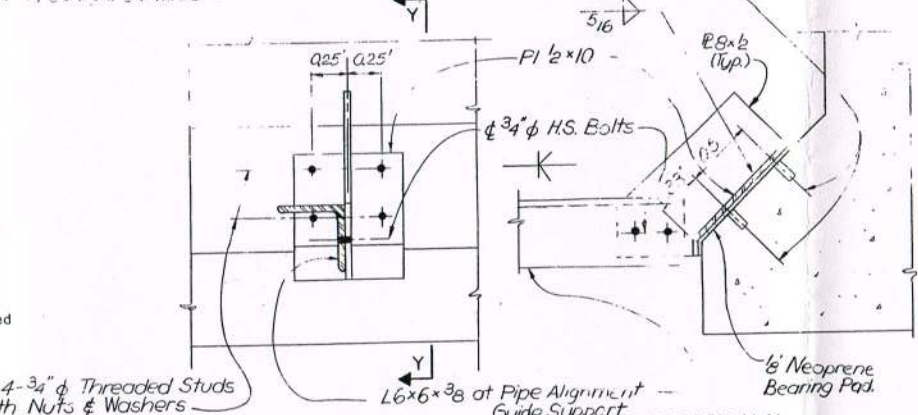
PLAN AT JOINT
No Scale



TYPICAL SECTION
Scale: 2"=1'-0"



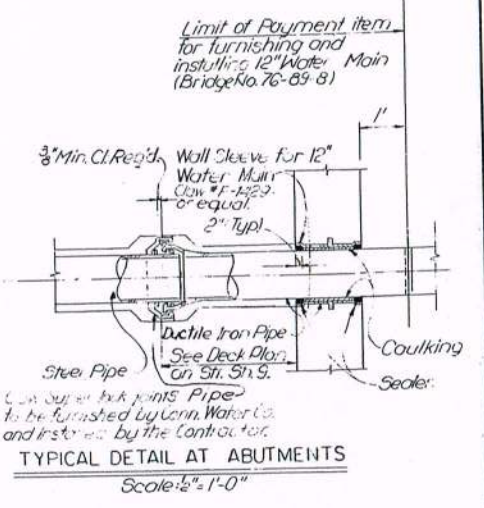
SECTION B-B
Scale: 5"=1'-0"



SECTION X-X
Scale: 1 1/2"=1'-0"

SECTION Y-Y
Scale: 1 1/2"=1'-0"

PIPE ROLL SUPPORT FOR 12" WATER MAIN



TYPICAL DETAIL AT ABUTMENTS
Scale: 6"=1'-0"

NOTE:
Cast of all supports over 3/8" connectors. Cast concrete inserts, 8" Neoprene bearing pad on a pipe roll support with diameter over 12" include 1" thick 'Install Guide' Water Main (Bridge No. 76-89-5) These items shall be furnished and installed by the Contractor.
Pipe material, pipe alignment guides, Wall Sleeves and heat cables will be furnished by the Connecticut Water Company and shall be installed by the Contractor.

CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
TOWN OF VERNON
KELLEY ROAD OVER HOCKANUM RIVER

SLAB DETAILS

ENGINEER	FRANKLAND & SENHARD CONSULTING ENGINEERS		
APPROVED	S.J.	DATE	3-30-78
DRAFTSMAN	E.N.	CHECKER	I.S.
DESIGNER			
NO.	DATE	DESCRIPTION	REVISIONS
		STRUCTURE NO. 76-89-8	STRUCTURE SHEET 11 OF 17