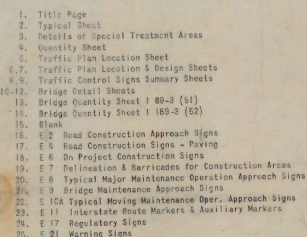


The seal of the State of Vermont is located at the bottom center of the page. It features a shield with a pine tree in the center, flanked by a cow on the left and a sheep on the right. Above the shield is a crest with a bent arm holding a sword. A banner at the bottom of the shield reads "VERMONT".

PAVEMENT OVERLAY
PROPOSED IMPROVEMENTS OF WILLISTON, SOUTH BURLINGTON, BURLINGTON, WINOOSKI, & COLCHESTER COUNTY OF CHITTENDEN INTERSTATE ROUTES 1-89 & I-189
 MONTPELIER - ST. ALBANS ROAD

RECORD PLANS
MATERIALS

I 89-3 (51)

BEGINNING AT A POINT APPROXIMATELY 0.633 MILES
EASTERLY OF THE WILLISTON - SOUTH BURLINGTON
TOWN LINE AND EXTENDING IN A NORTHERLY
DIRECTION 7.442 MILES.

LENGTH OF ROADWAY	37,505.94	FEET	7.103	MILES
LENGTH OF BRIDGES	1,788.31	FEET	0.339	MILES
LENGTH OF PROJECT	39,294.25	FEET	7.442	MILES

I 189-3 (52)

BEGINNING AT A POINT APPROXIMATELY 72.21 FEET
WESTERLY OF THE BURLINGTON - SOUTH BURLINGTON
TOWN LINE AND EXTENDING IN A EASTERLY
DIRECTION 1.410 MILES.

LENGTH OF ROADWAY	7,114.47	FEET	1.347	MILES
LENGTH OF BRIDGES	332.20	FEET	0.063	MILES
LENGTH OF PROJECT	7,446.67	FEET	1.410	MILES

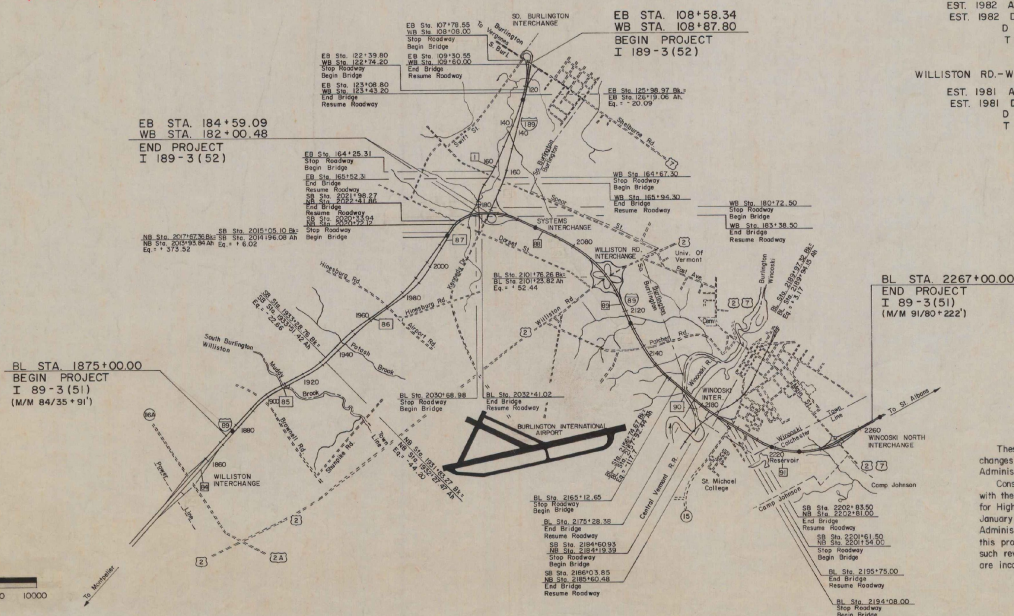
CONTRACT DATED APR. 24, 1975
CONTRACT BEGAN MAY 20, 1975
CONTRACT COMPLETED OCT. 8, 1975
CONTRACT ACCEPTED OCT. 8, 1975

WILLISTON RD.-WINOOSKI INTERCHANGE				WINOOSKI-WINOOSKI NO. INTERCHANGE			
EST. 1981	ADT	26,350	VPD	EST. 1981	ADT	10,700	VPD
EST. 1981	DHV	2,820	VPH	EST. 1981	DHV	1,650	VPH
D	52 %			D	59 %		
T	10 %			T	10 %		

TRAFFIC DATA I 189-3(52)
SO. BURLINGTON - SYSTEMS INTERCHANGE
EST. 1981 ADT 25,150 VPD
EST. 1981 DHV 2,800 VPH
D 57 %
T 8 %

APPROXIMATE SCALE IN FEET:

2000 0 2000 4000 6000 8000 10000



These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Chief Engineer.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated January 3, 1972 as approved by the Federal Highway Administration on December 28, 1971 for use on this project, including all subsequent revisions and such revised specification and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

APPROVED E. H. Stickney DATE 5/9/74
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ENGINEER

PROJECT I I
N^o (89-3 (52)
89-3 (51)

SHEET I OF 25 SHEETS

NOTE: REFER TO SHEET 3 FOR DETAILS OF AREAS OF SPECIAL TREATMENT.

TYPICAL SECTIONS

2" BITUMINOUS CONCRETE PAVEMENT OVERLAY, ITEM 406.25, WEARING COURSE TYPE III (1 1/4" FOR TOTAL THICKNESS)
W/ TRUNG COURSE- 1/2" AVERAGE DEPTH, ITEM 406.25.
FOR SHOULDER COMPOSITION, SEE SKETCH LOWER RIGHT.
BITUMINOUS SURFACE TREATMENT TYPE III, 404.40
3/4" OPEN GRADED ASPHALT FRICTION COURSE, ITEM 409.25
1 1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25

SEE NOTE AT UPPER LEFT

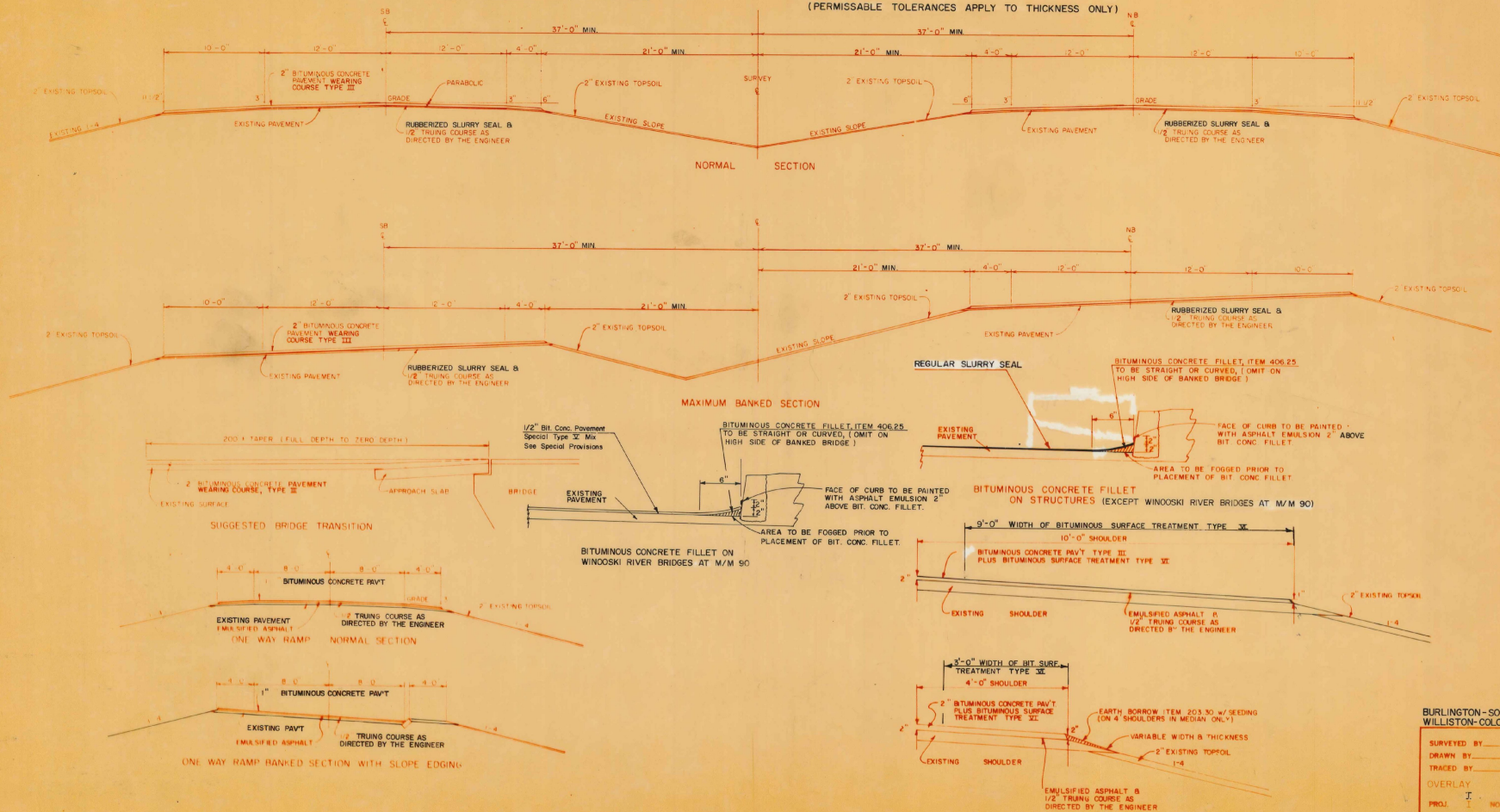
RUBBERIZED SLURRY SEAL (SEE SCHEDULE AT UPPER LEFT FOR AREAS OF THIS TREATMENT).
ASPHALT EMULSION FOR SLURRY SEAL, ITEM 405.10
AGGREGATE FOR SLURRY SEAL, ITEM 405.15, (26" WIDTH)
VULCANIZED RUBBER SHREDS, ITEM 405.20
EMULSIFIED ASPHALT, ITEM 404.65
REGULAR SLURRY SEAL (BRIDGES ONLY- ALL BRIDGES EXCEPT WINOOSKI RIVER BRIDGE AT M/M 90)
ASPHALT EMULSION FOR SLURRY SEAL, ITEM 403.10
AGGREGATE FOR SLURRY SEAL, GENERAL, ITEM 403.12

SEEDING, ITEM 651.10	%WT.	LBS/ACRE	NAME	PURITY%	GERM%
41.67	25		CREeping RED FESCUE	98	85
25.00	15		ALFALFA	99	85
8.33	5		RED TOP	92	85
16.67	10		PERENNIAL RYE GRASS	95	90
8.33	5		BIRDFOOT TREFOIL (VAR. EMPIRE)	98	90
100.00	60	LBS PER ACRE			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED

SPECIAL TREATMENT ON WINOOSKI RIVER BRIDGES AT M/M 90
1/2" BITUMINOUS CONCRETE PAVEMENT (SPECIAL TYPE III MIX - SEE SPECIAL PROVISIONS)
EMULSIFIED ASPHALT

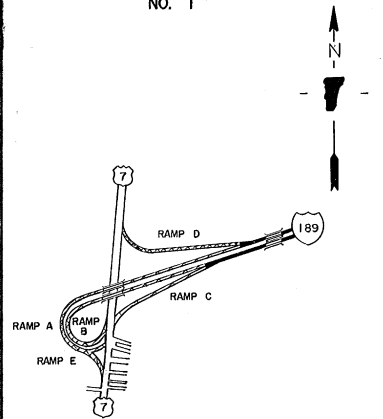
(PERMISSABLE TOLERANCES APPLY TO THICKNESS ONLY)



BURLINGTON-SO. BURLINGTON
WILLISTON-COLCHESTER

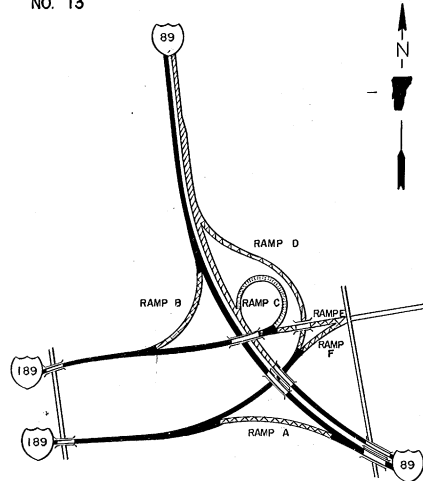
SURVEYED BY: _____ DATE: _____
DRAWN BY: _____ DATE: _____
TRACED BY: _____ DATE: _____
OVERLAY: J 185-3(52)
PROJ. 1 NO. 89-3(51)
SHEET 2 OF 25

SOUTH BURLINGTON INTERCHANGE NO. 1



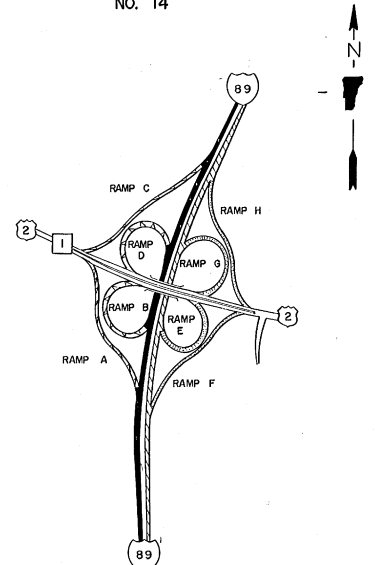
SLURRY SEAL & 2" OVERLAY
EMULSIFIED ASPHALT & 1" OVERLAY } See typical sheet 2

SYSTEMS INTERCHANGE NO. 13

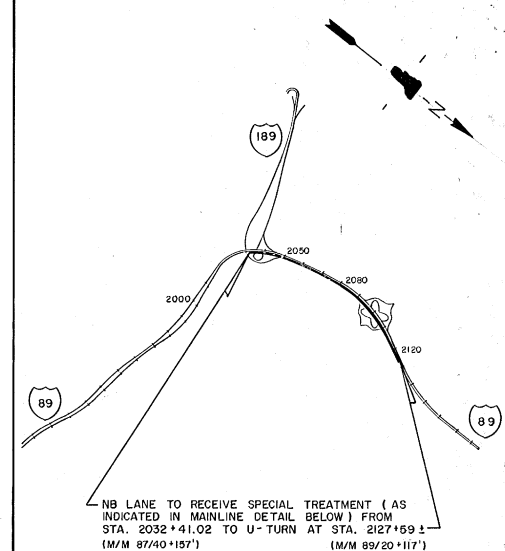


SLURRY SEAL & 2" OVERLAY
EMULSIFIED ASPHALT & 1" OVERLAY } See typical sheet 2
SLURRY SEAL & 2" OVERLAY (See Mainline typical below)
EMULSIFIED ASPHALT & 1" OVERLAY (See Ramp typical below)

WILLISTON ROAD INTERCHANGE NO. 14

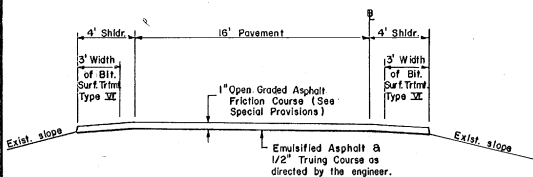


SLURRY SEAL & 2" OVERLAY
EMULSIFIED ASPHALT & 1" OVERLAY } See typical sheet 2
SLURRY SEAL & 2" OVERLAY (See Mainline typical below)
EMULSIFIED ASPHALT & 1" OVERLAY (See Ramp typical below)



NOTES:

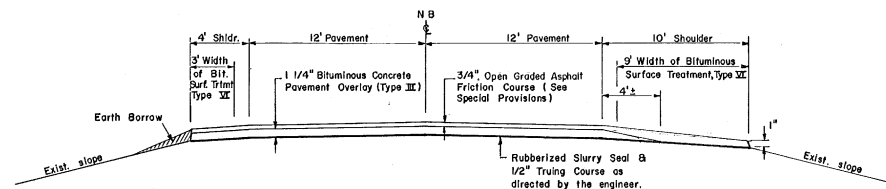
- Portions of mainline and ramps not shown above are to be treated in accordance with details on sheet 2.
- See Sheet 2 for seeding and general notes.



TYPICAL RAMP SECTION
SPECIAL TREATMENT AREA

Ramps E, F, G, & H Interchange 14
Ramp C Interchange 13

Note: Trueing course for all ramps will be Bituminous Concrete Pavement, Type III.



TYPICAL MAINLINE SECTION
SPECIAL TREATMENT AREA

DETAILS OF SPECIAL TREATMENT AREAS

SURVEYED BY: _____ DATE: _____
DRAWN BY: R.M.M. DATE: 4/74
TRACED BY: S.B.S. DATE: 4/74
BURLINGTON-SO. BURLINGTON
WILLISTON-COLCHESTER
PROJ. I NO. 189-3(52)
89-3(51)
SHEET 2 OF 23

APPROXIMATE SUMMARY OF QUANTITIES						
	I 189-3 (52)	I 89-3 (51)	QUANTITIES GRAND TOTAL	UNIT	ITEMS	AMOUNT ITEM NO.
	100	1,900	1,500	CY	Earth Borrow	Est. 203.90
	100	400	500	CY	Granular Borrow	Est. 203.92
	118	995	509	CWT	Asphalt Emulsion for Slurry Seal	403.10
	22	24	96	TON	Aggregate for Slurry Seal, General	403.12
	5,610	30,150	38,200	GAL	Bituminous Surface Treatment, Type VI	83 404.40
	3,200	15,500	18,700	GAL	Emulsified Asphalt	85 404.65
	1,750	10,650	12,400	CWT	Asphalt Emulsion for Slurry Seal	36 405.10
	170	1,040	1,210	TON	Aggregate for Slurry Seal	5 405.15
	66	404	470	TON	Volcanized Rubber Shreds	1 405.20
	8,010	44,210	52,220	TON	Bituminous Concrete Pavement	3 406.25
	3	2,150	2,150	TON	Open Graded Asphalt Friction Course	3 409.25
		15	18	EA	Changing Elevations of Drop Inlets, Catch Basins or Manholes	Est. 404.90
		1	1	LS	Structural Steel (31,390 lbs.)	506.94
	5	30	35	HR	All-Purpose Excavator Rental	Est. 408.25
	5	20	25	HR	Power Broom Rental	Est. 408.30
	100	600	700	HR	Dust & Ice Control - Calcium Chloride	Est. 409.15
				HR	Uniformed Traffic Officers	Est. 430.10
	0.15	0.85	1	EA	Employee Training	681.10
				LS	Mobilization	685.10
	1	1	1	LS	Traffic Control (I 89-3 (51))	681.10
	25	150	155	LS	Traffic Control (I 189-3 (52))	681.10
				LS	Seed	Est. 681.10
	100	100	200	SF	Traffic Signs, Type A	675.20
	100	100	200	SF	Traffic Signs, Type B	675.25

QUANTITY SHEET

I 189-3 (52)			
DETAILED SUMMARY OF QUANTITIES			
QUANTITIES	UNIT	ITEMS	
		Bituminous Concrete Pavement	
5,477	TON	Overlay - Mainline (incl. speed change lanes & tapers)	
606	TON	Overlay - Ramps	
1,615	TON	Leveling Course - Mainline	
912	TON	Leveling Course - Ramps	
0	TON	Rounding	
8,010	TON	Total	
		Emulsified Asphalt	
2,060	GAL	Mainline (including Speed Change Lanes & Tapers)	
1,118	GAL	Ramps	
25	GAL	Rounding	
3,200	GAL	Total	
		Bituminous Surface Treatment, Type VI	
5,048	GAL	Mainline (including Speed Change Lanes & Tapers)	
569	GAL	Ramps	
99	GAL	Rounding	
5,690	GAL	Total	

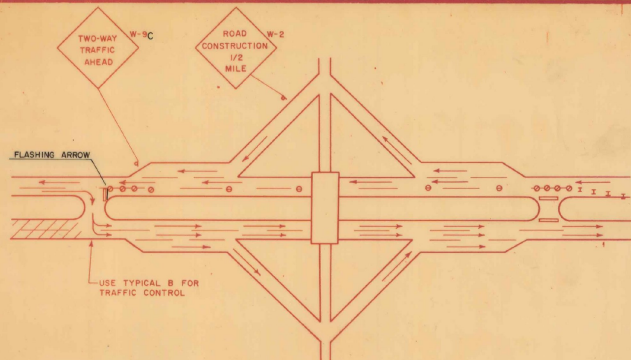
I 89-3 (51)			
DETAILED SUMMARY OF QUANTITIES			
QUANTITIES	UNIT	ITEMS	
		Bituminous Concrete Pavement	
3,012	TON	Overlay Mainline (incl. speed change lanes & tapers)	
2,705	TON	Overlay - Ramps	
8,302	TON	Leveling Course - Mainline	
1,588	TON	Leveling Course - Ramps	
3	TON	Rounding	
44,210	TON	Total	
		Open Graded Asphalt Friction Course	
1,481	TON	Mainline	
666	TON	Ramps	
9	TON	Rounding	
2,150	TON	Total	
		Emulsified Asphalt	
2,814	GAL	Mainline (including Speed Change Lanes & Tapers)	
5,620	GAL	Ramps	
60	GAL	Rounding	
15,500	GAL	Total	
		Bituminous Surface Treatment, Type VI	
27,369	GAL	Mainline (including Speed Change Lanes & Tapers)	
5,131	GAL	Ramps	
99	GAL	Rounding	
30,599	GAL	Total	
		* Includes quantities for Winooski River Bridges	
		** Includes bridge quantities	

STATE OF VERMONT DEPARTMENT OF HIGHWAYS
Burlington - So. Burlington
Williston - Colchester

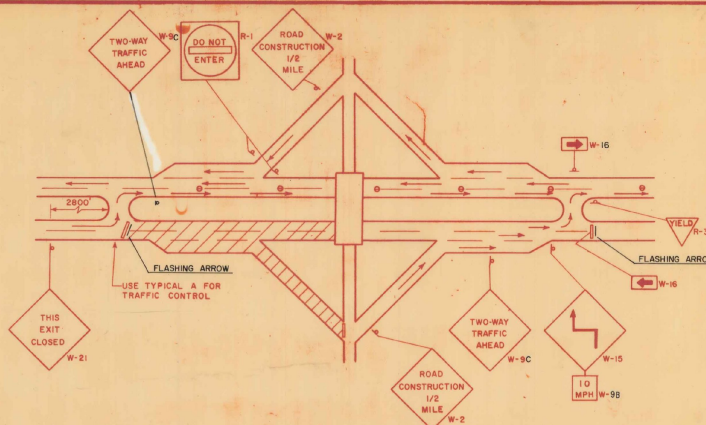
PROJECT NO. I 189-3 (52)
I 89-3 (51)

SUMMARY SHEET NO. _____ OF _____ 19 _____

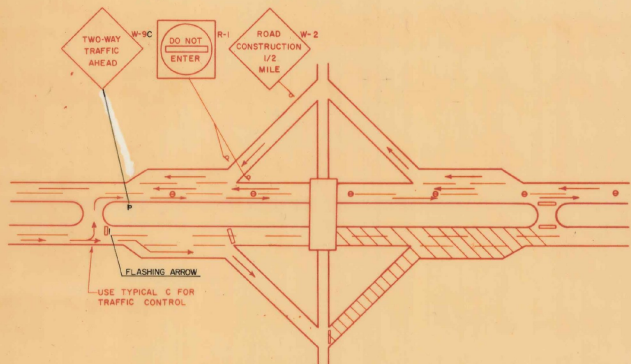
TYPE OF CONSTRUCTION						
STATIONS		PAVEMENT WIDTHS		EQUATIONS		
FROM	TO	16' Roadway	24' Roadway	Bridges	+	-
I 89-3 (51)						
Northbound						
1875+00	2020+72.12		19801.44		873.52	96.20
2020+72.12	2032+41.86				169.75	
2032+41.86	2030+68.98		827.12		172.04	
2030+68.98	2032+41.02					
2032+41.02	2165+12.65		13206.37		51.44	117.7
2165+12.65	2175+28.38					
2175+28.38	2184+19.39		891.01			
2184+19.39	2185+60.88				151.09	
2185+60.88	2194+58.00		850.69			3.17
2194+58.00	2195+75.00				167.00	
2195+75.00	2201+55.00		579.00			
2201+55.00	2202+81.00				127.00	
2202+81.00	2267+00		6419.00			
NB Totals			37675.63		1792.60	
Southbound						
1875+00	2020+33.94		19517.30		6.02	22.66
2020+33.94	2021+98.27				165.33	
2021+98.27	2030+68.98		870.71			
2030+68.98	2032+41.02				172.04	
2032+41.02	2165+12.65		13206.37		51.44	117.7
2165+12.65	2175+28.38					
2175+28.38	2184+50.93		932.55			
2184+50.93	2186+03.85				142.32	
2186+03.85	2194+58.00		807.32			3.17
2194+58.00	2195+75.00				167.00	
2195+75.00	2201+61.50		586.50			
2201+61.50	2202+81.50				122.00	
2202+81.50	2267+00		6416.50			
SB Totals			37837.25		1784.52	
I 89 Average Lengths			37655.84		1788.31	
I 189-3 (52)						
Eastbound						
108+58.31	109+30.55				72.21	
109+30.55	118+53	922.45				
118+53	122+39.80		386.80			
122+39.80	123+08.80				69.00	
123+08.80	141+25.31		4096.42			20.09
141+25.31	145+55.31					
145+55.31	184+59.09		1906.78			
EB Totals		922.45	6990.00		268.21	
Westbound						
108+58.31	109+30.00				72.20	
109+30.00	122+00	1298.60				
122+00	123+75.20		76.20			
123+75.20	123+93.20				69.00	
123+93.20	141+67.30		4124.10			
141+67.30	145+94.30				127.00	
145+94.30	184+72.50		1478.20			
184+72.50	187+00.48				127.98	
WB Totals		1298.60	5672.50		396.19	
I 189 Average Lengths		1083.22	6011.25		332.20	
TOTALS						
LENGTH OF PROJECT						
STATIONS		FEET		MILES		REMARKS
I 89-3 (51)						
1875+00	2267+00	39294.25		7.442		Average Length - NB & SB Lanes
I 189-3 (52)						
108+58.31	184+59.785	7466.67		1.410		Average Length - EB & WB Lanes
BURLINGTON-SO. BURLINGTON						
WILLISTON-COLCHESTER						
I 89-3 (51)				I 189-3 (52)		
No. of Sheets				Sheet 9 of 25		



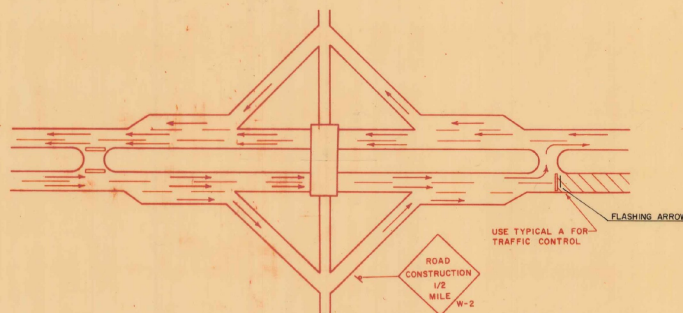
TYPICAL TRAFFIC PATTERN (1)
DURING WORK APPROACHING INTERCHANGE



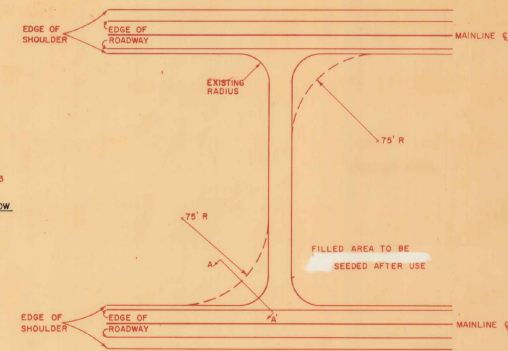
TYPICAL TRAFFIC PATTERN (2)
DURING WORK ON EXIT RAMP
(NO EXIT FOR TRAFFIC ON LANE UNDER CONSTRUCTION)



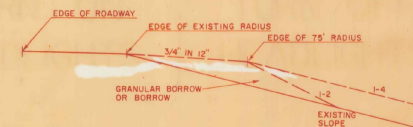
TYPICAL TRAFFIC PATTERN (3)
DURING WORK ON ENTRANCE RAMP
(NO ENTRANCE TO LANE UNDER CONSTRUCTION)



TYPICAL TRAFFIC PATTERN (4)
FOR WORK BEYOND INTERCHANGE



MODIFICATION OF EXISTING U-TURN



SECTION A'-A

NOTES

1. The traffic signs called for are the minimum required for proper traffic control. Additional signs or modifications in placement may be necessary because of unusual conditions at certain locations.
2. Refer to *Std. Sheets E 4 & 7* for design information of signs, and barricades.
3. Diagrams are for work on NB lane. Invert for work on SB.
4. U turns to be used or modified shall be designated by the paving engineer.



THIS SIGN IS TO BE PLACED ON THE POST SUPPORTING THE EXISTING SIGN READING "NEXT EXIT () MILES", APPROXIMATELY ONE MILE IN ADVANCE OF THE INTERCHANGE BEFORE THE INTERCHANGE UNDER CONSTRUCTION, WHEN TYPICAL TRAFFIC PATTERN (2) IS IN EFFECT.

- CONES AT 350 FOOT SPACING
- CONES AT 100 FOOT SPACING
- CONES AT 10 FOOT SPACING
- 1 TYPE I BARRICADE
- 1 TYPE III BARRICADE
- 1 FLAGMAN
- /// CURRENT WORK AREA

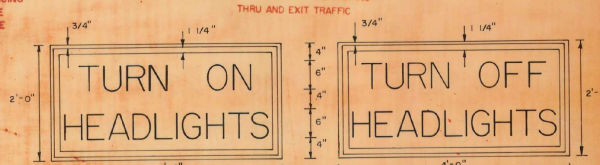
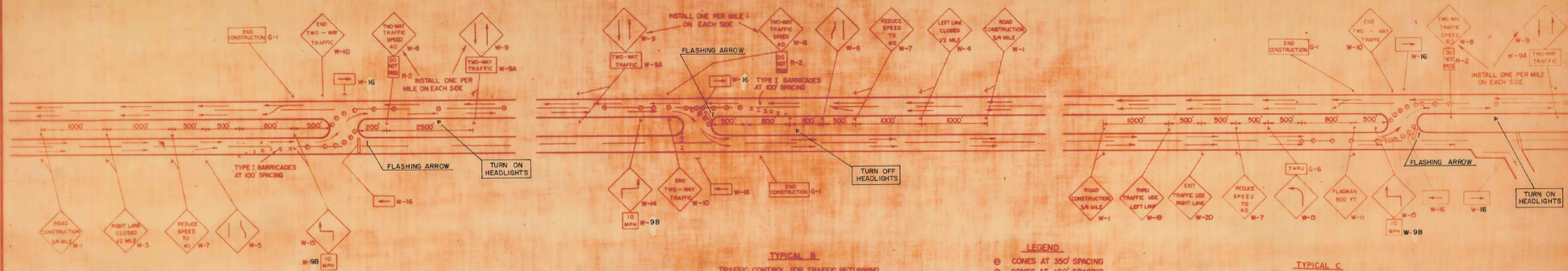
TRAFFIC CONTROL FOR INTERCHANGE AREAS

REFER TO SHEET 6 OF 25 FOR TYPICALS A, B, & C

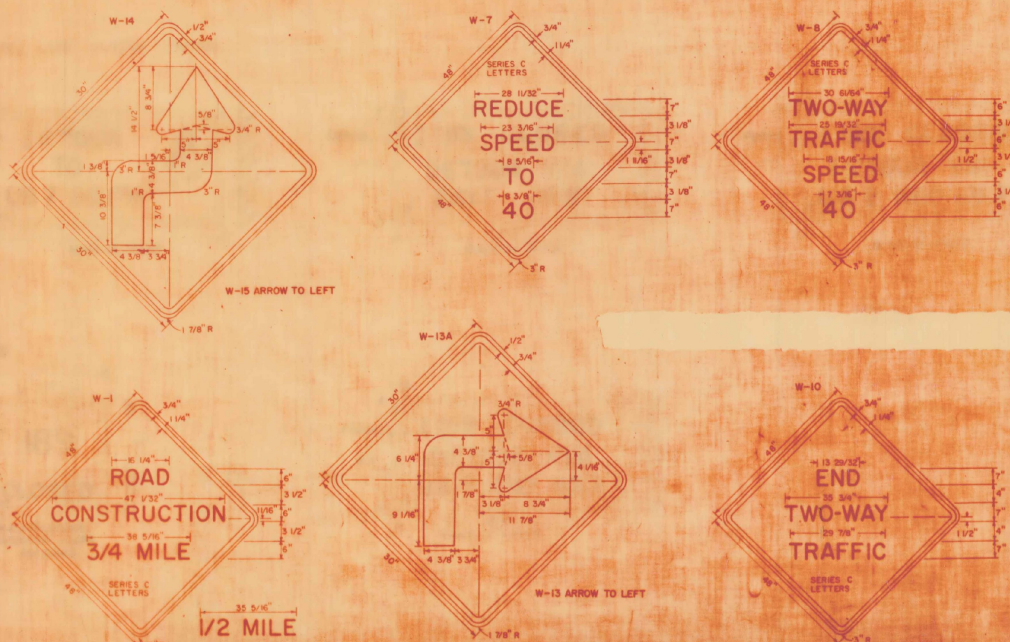
BURLINGTON-SO. BURLINGTON
WILLISTON-COLCHESTER

TRAFFIC PLAN LOCATION SHEET

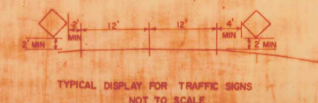
SURVEYED BY: DATE:
DRAWN BY: DATE:
TRACED BY: D.Z.G. DATE: 3/73
OVERLAY
I 189-3(52)
PROJ. 1 NO. 89-3(51)
SHEET 3 OF 25



- GENERAL NOTES**
- Sign H-3 and H-5 on Standard Sheet E-2 shall be used at the beginning and end of the project.
 - The traffic signs indicated on this sheet are to be placed as shown above of all work areas where the normal flow of traffic is interrupted or changed.
 - Standard Type I Barricades (Standard E-7) are to be placed at 100 foot intervals through lane taper.
 - Standard Type III Barricades (Standard E-7) are to be placed at all locations where traffic would have access into the work area and at that location at the end of a two-way zone where traffic is being directed back into its normal lane.
 - Cones are to be placed, at varying spacing, throughout the construction zone as shown in Typical Traffic Control Diagrams. The cones shall be stabilized to withstand air currents generated by traffic and natural causes.
 - For additional information regarding materials, design, lettering, etc. for traffic signs and barricades see Standard Sheets E-2, E-4, E-6, E-7, E-8, E-9, E-11, E-17, E-21.
 - Cones will be Orange in color and shall be a minimum of 28 inches in height. Those used for night-time traffic control shall be reflectorized.
 - Traffic will be diverted from one roadway to the other via existing crossovers or new crossovers constructed by the contractor with the approval of the Engineer.
 - The contractor will be responsible for furnishing the necessary mounting supports for the display of all signs.
 - Signs not called for on the plans may be ordered by the Engineer and paid for as item 675.20, Traffic Signs, Type A, or as item 675.25, Traffic Signs, Type B.
 - Refer to Specification 641 Traffic Control for flashing arrows.
 - Headlight control signs are to be removed one hour before sunset and erected one hour after sunrise when 2-way traffic is maintained 24 hours a day.



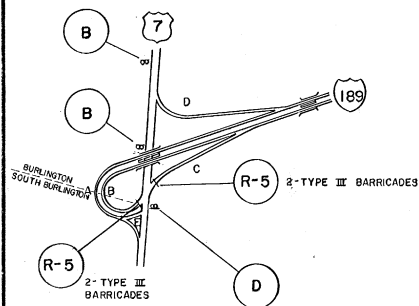
THESE SIGNS SAME FORMAT AS SIGN W-1
 W-18 NEXT EXIT CLOSED
 W-19 THRU TRAFFIC USE LEFT LANE
 W-20 EXIT TRAFFIC USE RIGHT LANE
 W-21 THIS EXIT CLOSED
 W-22 TWO-WAY TRAFFIC AHEAD



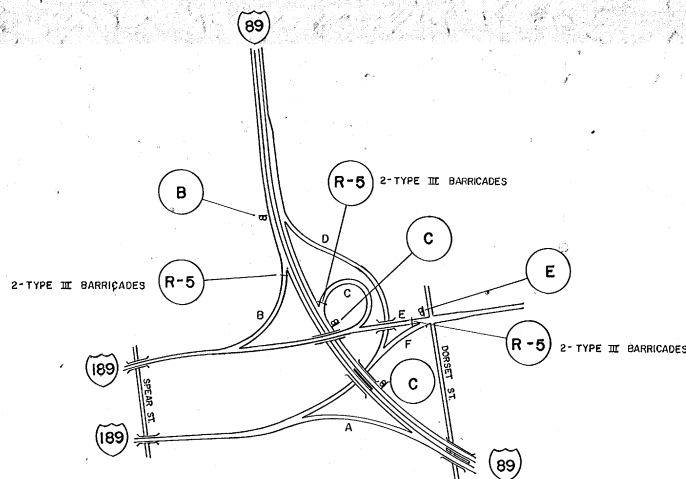
**TRAFFIC PLAN
LOCATION AND
DESIGN SHEET**

BURLINGTON-SO. BURLINGTON
WILLISTON-COLCHESTER

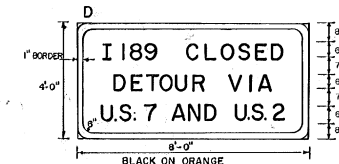
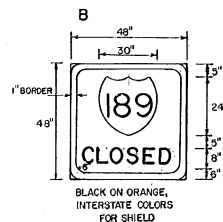
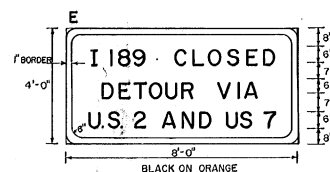
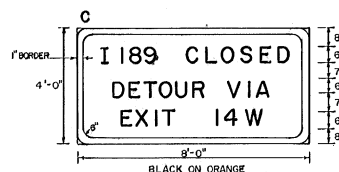
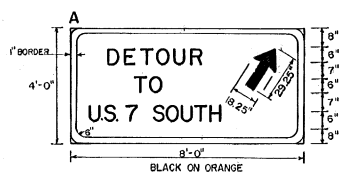
PREPARED BY: SER
 DRAWN BY: SER
 CHECKED BY: SER
 OVERLAY
 PROJ. NO. 189-3(52)
 89-3(51)
 SHEET 6 OF 25



EASTBOUND LANE CLOSED TYPICAL



WESTBOUND LANE CLOSED TYPICAL



GENERAL NOTES

- (1) Sign R-3 and R-5 on Standard Sheet E2 shall be used at beginning and end of projects.
- (2) The location of these signs may be adjusted in the field to fit conditions at each location where the normal flow of traffic is interrupted or changed.
- (3) Standard Type III Barricade (Standard E7) are to be placed at all locations where traffic would have access into the work area.
- (4) Traffic will be detoured through the cities of Burlington and South Burlington 24 hours a day while the paving is in progress. One roadway at a time will be closed; traffic will be maintained on the opposite roadway.
- (5) Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground or attached to a barricade. The bottom of signs on posts shall be at least 8 feet above road level and the nearest edge of each sign shall be located so as to not interfere with traffic, or with pedestrians on sidewalks. The posts and signs shall be braced or reinforced in the back if necessary. The installation of the signs shall be subject to the approval of the engineer.
- (6) The contractor shall be responsible for furnishing the necessary mounting supports for the display of signs.
- (7) All guide signs on Routes I-89, US-2 and US-2 directing traffic to I-189 when the pertinent roadway is closed to traffic shall be covered and periodically checked to insure that the message is not visible to motorists while the pertinent roadway is being paved.
- (8) Signs not called for on the plans may be ordered by the engineer and paid as per 305.00 Traffic Signs Type A or as per 305.25 Traffic Signs Type B.
- (9) Signs R-1 (NOA CLOSED) shall be mounted on each Type III Barricade.
- (10) These signs shall have an orange encapsulated lens reflective sheeting background with black lettering film or painted text except interstate shields which shall be interstate colors.

TRAFFIC PLAN LOCATION AND DESIGN SHEET		BURLINGTON - SOUTH BURLINGTON	
SURVEYED BY	DATE	DRAWN BY	DATE
TRACED BY	DATE	PROJ. I	NO. 189-3(52)
SHEET 7		OF 25	

TRAFFIC CONTROL SIGNS SUMMARY SHEET

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN COLOR			TOTAL SIGN AREA
		WIDTH	HEIGHT		TEXT	BACK-GROUND		
W-1	4	48"	48"		BLACK	ORANGE		64 ⁰
W-2	2	48"	48"		BLACK	ORANGE		32 ⁰
W-3	2	48"	48"		BLACK	ORANGE		32 ⁰
W-4	2	48"	48"		BLACK	ORANGE		32 ⁰
W-5	1	48"	48"		BLACK	ORANGE		16 ⁰
W-6	1	48"	48"		BLACK	ORANGE		16 ⁰
W-7	4	48"	48"		BLACK	ORANGE		64 ⁰
W-8	18	48"	48"		BLACK	ORANGE		228 ⁰
W-9	18	48"	48"		BLACK	ORANGE		228 ⁰
W-9A	8	24"	18"	TWO WAY TRAFFIC	BLACK	ORANGE		24
W-9B	5	24"	24"	10 MPH	BLACK	ORANGE		20
W-9C	1	48"	48"		BLACK	ORANGE		16 ⁰

COLUMN TOTAL = 572⁰

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN COLOR			TOTAL SIGN AREA
		WIDTH	HEIGHT		TEXT	BACK-GROUND		
W-10	2	48"	48"		BLACK	ORANGE		32 ⁰
W-11	2	48"	48"		BLACK	ORANGE		32 ⁰
W-12	2	48"	24"	TURN OFF HEADLIGHTS	BLACK	ORANGE		16 ⁰
W-13	1	30"	30"		BLACK	ORANGE		6.3 ⁰
W-14	1	30"	30"		BLACK	ORANGE		6.3 ⁰
W-15	2	30"	30"		BLACK	ORANGE		12.5 ⁰
W-16	8	48"	24"		BLACK	ORANGE		88 ⁰
W-17	2	48"	24"	TURN ON HEADLIGHTS	BLACK	ORANGE		16 ⁰
W-18	1	48"	48"		BLACK	ORANGE		16 ⁰
W-19	1	48"	48"		BLACK	ORANGE		16 ⁰
W-20	1	48"	48"		BLACK	ORANGE		16 ⁰

COLUMN TOTAL = 217.1⁰
SHEET TOTAL = 879.6⁰

These signs will be furnished by the Vermont Highway Department. The necessary mounting supports for display of these signs will be furnished by the Contractor.

IDENTIFICATION	NUMBER OF SIGNS	SIZE		TEXT	SIGN COLOR			TOTAL SIGN AREA
		WIDTH	HEIGHT		TEXT	BACK-GROUND		
W-21	1	48"	48"		BLACK	ORANGE		16 ⁰
R-1	2	30"	30"		WHITE	RED		—
R-2	18	24"	30"		BLACK	WHITE		40
G-1	2	60"	24"		BLACK	ORANGE		20 ⁰
G-2	4	30"	15"		BLACK	ORANGE		12.5 ⁰
G-3	4	24"	12"		WHITE	BLUE		—
G-4	4	24"	12"		WHITE	BLUE		—
G-5	4	24"	24"		WHITE	BLUE		—
G-6	1	21"	15"		BLACK	ORANGE		2 ⁰
R-3	2	36"	29"		RED	WHITE		—

COLUMN TOTAL = 90.5⁰

IDENTIFICATION OF TRAFFIC SIGNS

Traffic signs are identified on these plans by a number prefixed by a letter which indicates the following general classifications:

- G - Other guide signs
- R - Regulatory signs
- W - Warning signs

Traffic signs may be mounted on a portable support. They will be positioned in accordance with plan sheets 4 & 5. (Typical display for traffic signs)

The background and text on all traffic signs may be of non-reflectORIZED character except those signs to be used for night-time traffic control shall be reflectORIZED.

Traffic Control signs to be furnished and installed (unless otherwise indicated) as Section 641, Traffic Control.

All black & orange signs shall have an orange encapsulated lens reflective sheeting background.

BURLINGTON - SO. BURLINGTON
WILLISTON - COLCHESTER

SECTION 641
TRAFFIC CONTROL SIGNS
SUMMARY SHEET

PREPARED BY: AER DATE: 2/26/73
CHECKED BY: DAY
TRACED BY: DZG DATE: 3/73
OVERLAY
PROJ. I NO. 189-3 (52)
89-3 (51)
SHEET 8 OF 25

1992

[illegible]

COLUMN TOTAL • 348^q

[illegible]

* These signs will be furnished by the Vermont Highway Department. The necessary mounting supports for display of these signs will be furnished by the Contractor.

[illegible]

COLUMN TOTAL:

IDENTIFICATION OF TRAFFIC SIGNS

Traffic signs are identified on these plans by a number prefixed by a letter which indicates the following general classifications:

- G - Guide signs
R - Regulatory signs
W - Warning signs

Traffic signs may be mounted on a portable support. They will be positioned in accordance with plan sheets. (Typical display for traffic signs)

The background and text on all traffic signs may be of non-reflectORIZED character except those signs to be used for night-time traffic control shall be reflectORIZED.

Traffic Control signs to be furnished and installed (unless otherwise indicated) as Section 641, Traffic Control.

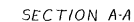
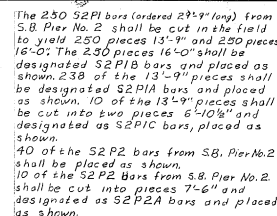
All black and orange signs shall have an orange encapsulated lens reflective sheeting background.

WILLISTON - COLCHESTER
BURLINGTON - SO. BURLINGTON

SECTION 641
TRAFFIC CONTROL SIGNS
SUMMARY SHEET

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
TRACED BY _____ DATE _____

I 89-3(51)
PROJ. I NO. 189-3(52)
SHEET 9 OF 25



Br 7A of 23

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Williston, South Burlington,
TOWN OF Winooski, Colchester

ROUTE No. I 89 LOG STA. _____

Overlap Sta 2170+20 Winooski River
Details Pier #3 N.B. Revised

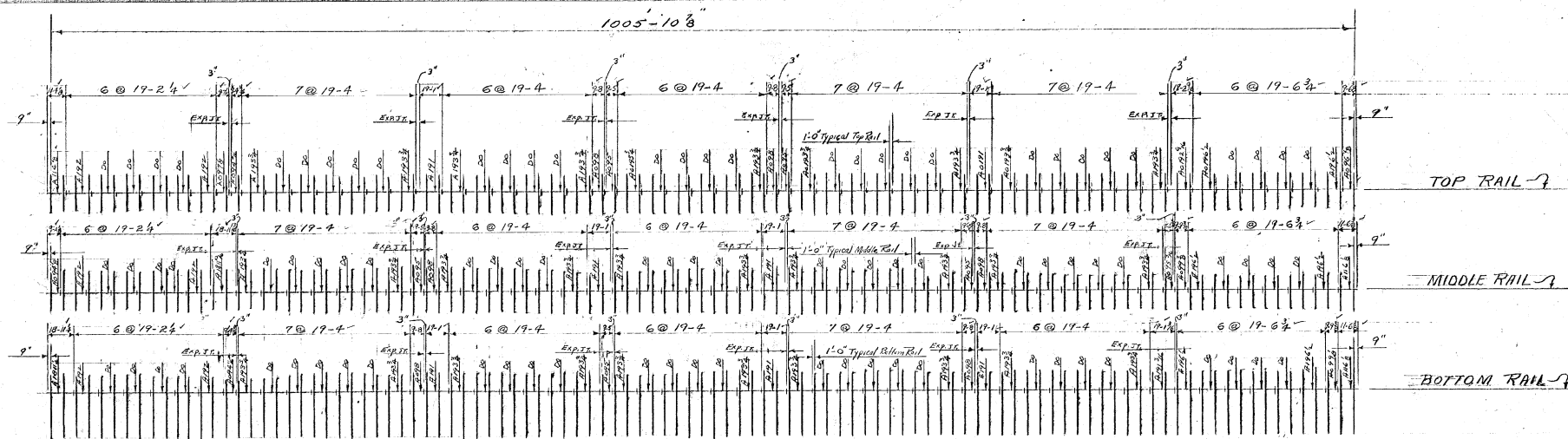
SCALE 1" = 1'

SURVEYED BY _____

DRAWN BY ALC CHECKED BY _____

PROJECT No. I-82-3(42)

SHEET _____ OF _____



WEST RAILING-LOOKING EAST
EAST RAILING-LOOKING WEST

NOTE:
 FOR CONTINUITY OF RAILING, PREFERABLY NOT MORE
 THAN ONE SPlice IN SAME GENERAL LOCATION
 FOR THIS AND ALL FUTURE RAILINGS OF THIS TYPE.

Modified

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
104-A	CHAN. EXCAV. OF EARTH	C.Y.				
104-B	CHAN. EXCAV. OF ROCK	C.Y.				
104-C	UNCLASS. CHAN. EXCAV.	C.Y.				
107	STRUCT. EXCAV.	C.Y.				
401-B	CONC. CLASS. 3 (WOOD)	C.Y.				
402	REINF. STEEL	LBS.				
207	ASPHALTIC-ASB. COATING	S.Y.				
503-B	TREATED TIMBER PILING	L.F.				
503	SPLICES FOR STEEL PILING	EA				
504	STEEL PILING	L.F.				
502-A	UNTREATED TIMBER PILING	L.F.				

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF WINOSKI

ROAD No. _____ BRIDGE No. _____

ELEVATION VIEW

BRIDGE RAILING

SCALE _____

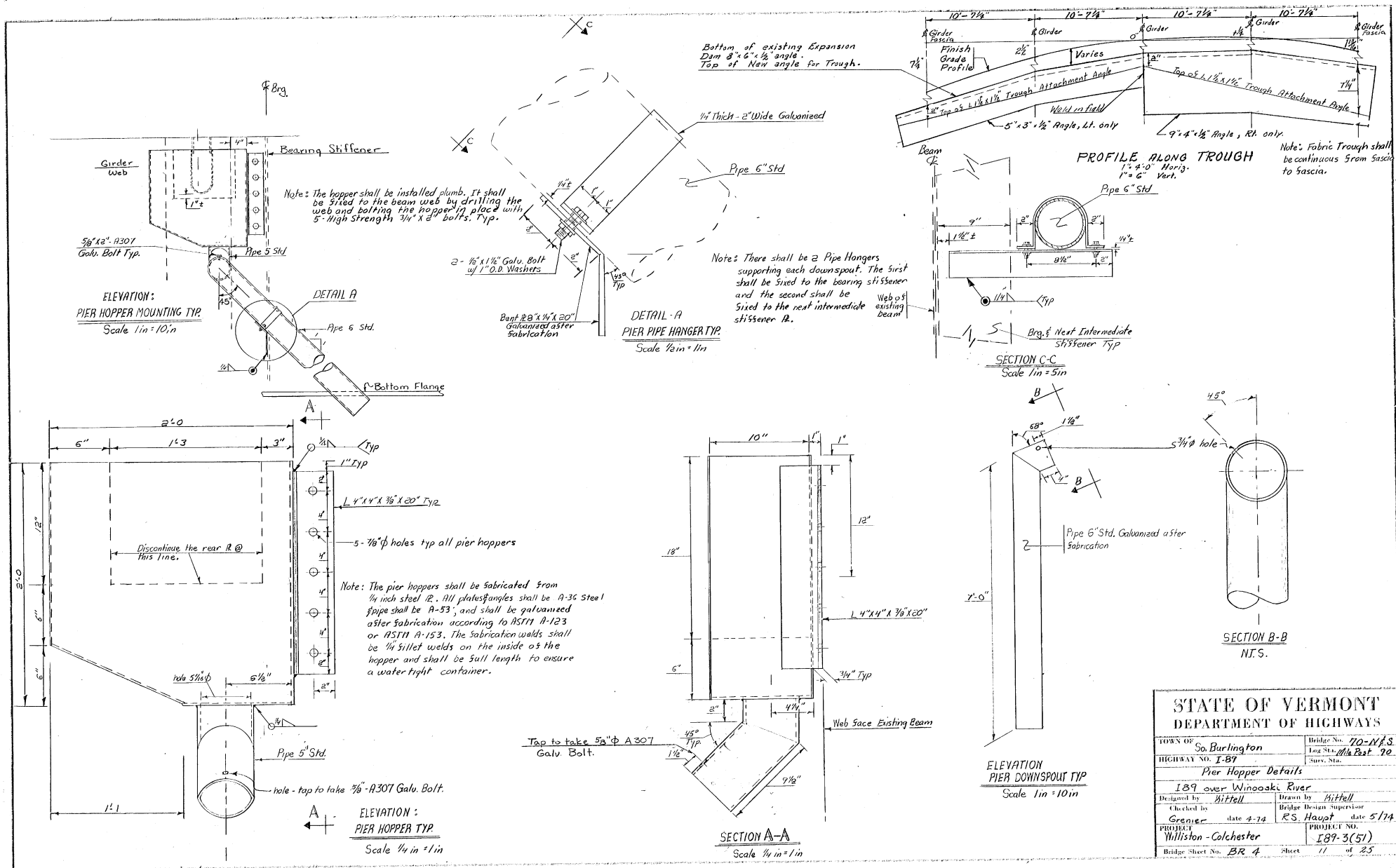
SURVEYED BY _____

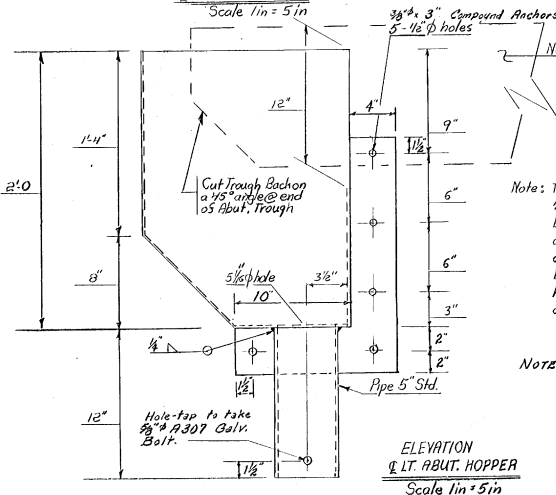
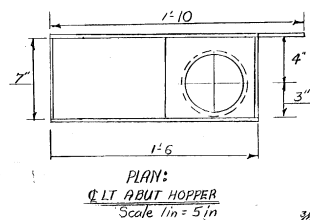
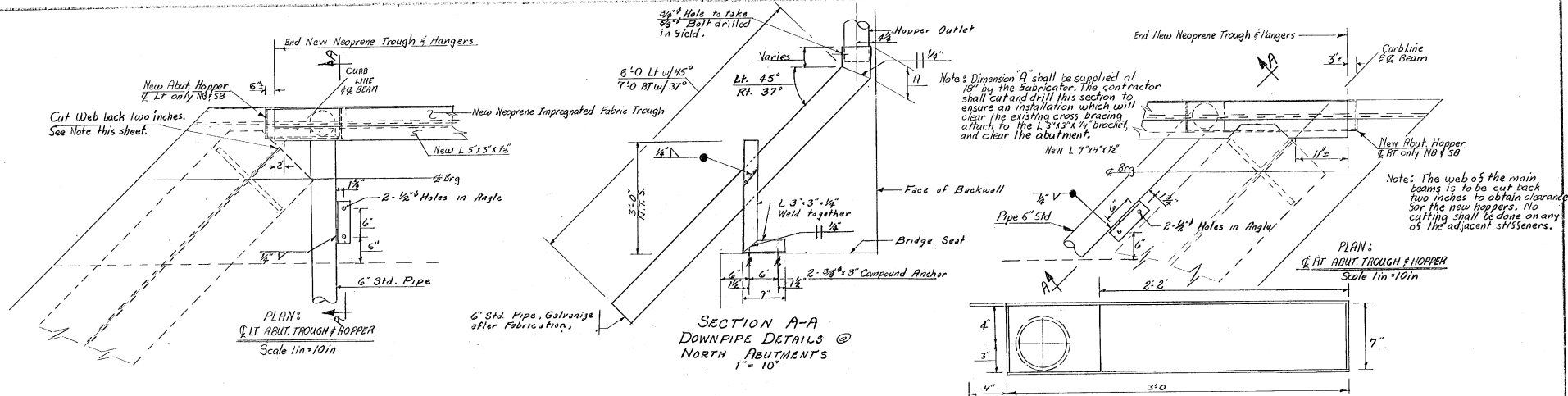
DRAWN BY JTC CHECKED BY ABC

PROJECT No. 197-3(10) Cont. 4

SHEET _____ OF _____

107-104-104

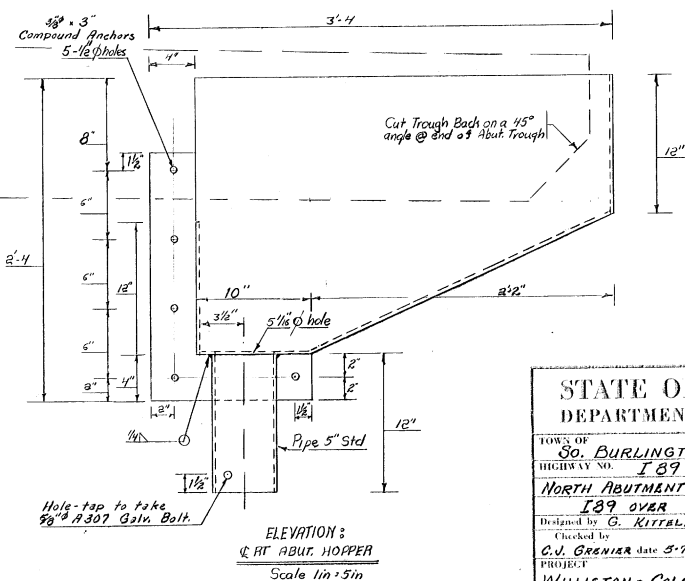
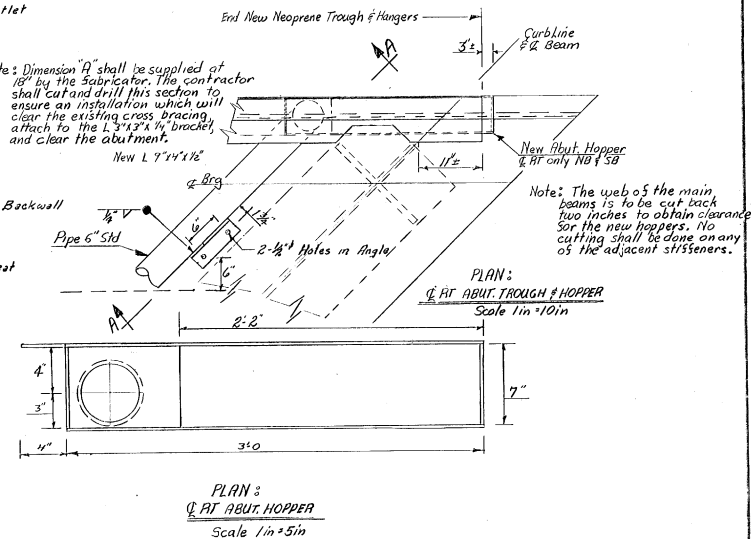




ERECTION Note: The hoppers shall be placed as shown on this sheet. This will require that the hopper be forced as far as possible up under the trough. The trough should be enclosed as much as possible by the hopper but should not be bent or buckled to restrict the flow of water. The hopper shall be held in place with the same $\frac{3}{8} \times 3$ " Compound Anchor System w/ Bearing Sleeve Threaded Set as is used and detailed for the backwall side of the abutment trough. Attach hoppers to Backwall.

Note: The Abut. hoppers shall be fabricated from $\frac{1}{4}$ inch steel (R). All plates shall be A-36 gal. pipes shall be ASTM A-53 Steel, and shall be galvanized after fabrication according to ASTM A-123 or ASTM A-153. The fabrication welds shall be $\frac{1}{4}$ " fillet welds on the inside of the hopper and shall be full length to ensure a watertight container.

NOTE: Ultimate load of each Compound Anchor:
Tension: 1600 pounds
Shear: 800 pounds



STATE OF VERMONT DEPARTMENT OF HIGHWAYS

TOWN OF SO. BURLINGTON	Bridge No. 70-NIS
HIGHWAY NO. 189	Log Sta. 1.00 Mile Post 90
PROJECT NORTH ABUTMENT HOPPER DETAILS	
189 OVER WINOOSKI RIVER	
Designed by G. KITTELL	Drawn by G. KITTELL
Checked by C.V. GRENIER date 5-74	Bridge Design Supervisor R.S. HUPT date 5-74
PROJECT NO. WILLISTON - COLCHESTER 189-3(51)	
Bridge Sheet No. BR 5	Sheet 12 of 25

BRIDGE QUANTITY SHEET

PROJECT NO. I89-3(51)
SHEET NO. 13 OF 25

		QUANTITY BREAKDOWN														
NO.	ITEM	UNIT	I-89 Over Moddy Bk.	I-89 Over Densest Sl.	I-89 Over I-89 EB	** I-89 Over I-89	I-89 Over W. Road Rn	I-89 Over CVAR	I-89 Over V. Rte. 15	I-89 Over La Grange	I-89 Over US 67	I-89 Over Beltway Interchange Ramp (Ramp)			TOTAL	FINAL
* 403.10	Asphalt Emulsion for Slurry Seal (One Course)	cwt	28	39	30	38	0	60	49	48	45	18			395	
* 403.12	Aggregate for Slurry Seal, General	Ton	5	11	10	7	0	11	9	9	9	3			74	
506.94	Structural Steel (31340 lbs) See Note	L.S.					1								1	
406.25	Bituminous Concrete Pavement	Ton					192								192	
404.65	Emulsified Asphalt	Gal.					691								691	
NOTE: THE TOTAL PAVEMENT WEIGHT OF STRUCTURAL STEEL SHOWN ON THE ESTIMATE UNDER ITEM 506.94 STRUCTURAL STEEL (LUMP SUM) INCLUDES ALL STEEL COMPONENTS OF THE TRUSSES, HOPPERS, DOWNPIPES, WEIGHT OF FABRIC TRUSSES, WELDED STUDS, ANCHOR BOLTS, NUTS AND WASHERS. THE WEIGHT OF WELDS HAS <u>NOT</u> BEEN INCLUDED IN THE TOTAL PAVEMENT.																
* Quantities given for treatment of approach slabs for a width of 10'-0" along & from deck joint																
** Entire quantities for this structure included in this contract for I-89																

NOTE:

THE TOTAL POUNDAGE WEIGHT OF	STRUCTURAL STEEL
SHOWN ON THE ESTIMATE UNDER	ITEM 506.94
STRUCTURAL STEEL (LUMP SUM)	INCLUDES ALL STEEL
COMPONENTS OF THE TROUGHS,	HOPPERS, DOWNPIPES,
WEIGHT OF FABRIC TROUGHS, WELDED STUDS, ANCHOR	
BOLTS, NUTS AND WASHERS. THE WEIGHT OF WELDS	
HAS NOT BEEN INCLUDED IN THE TOTAL POUNDAGE.	

* Quantities allow for treatment of approach slabs for a width of 10'-0" along & from deck joint

*** Entire quantities for this structure included in this contract for I89

BRIDGE (S) AT STATION (S) _____
LOCATION (S) WILLISTON - COLCHESTER

Prepared by: A. Elwood Checked by: R. P. GENDRON
SUPERVISOR: R. S. Haupt

BR 1 OF

PROJECT NO. I89-3(51)
SHEET NO. 13 OF 25

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

BRIDGE (S) AT STATION (S) _____
LOCATION (S) BURLINGTON- So. BURLINGTON

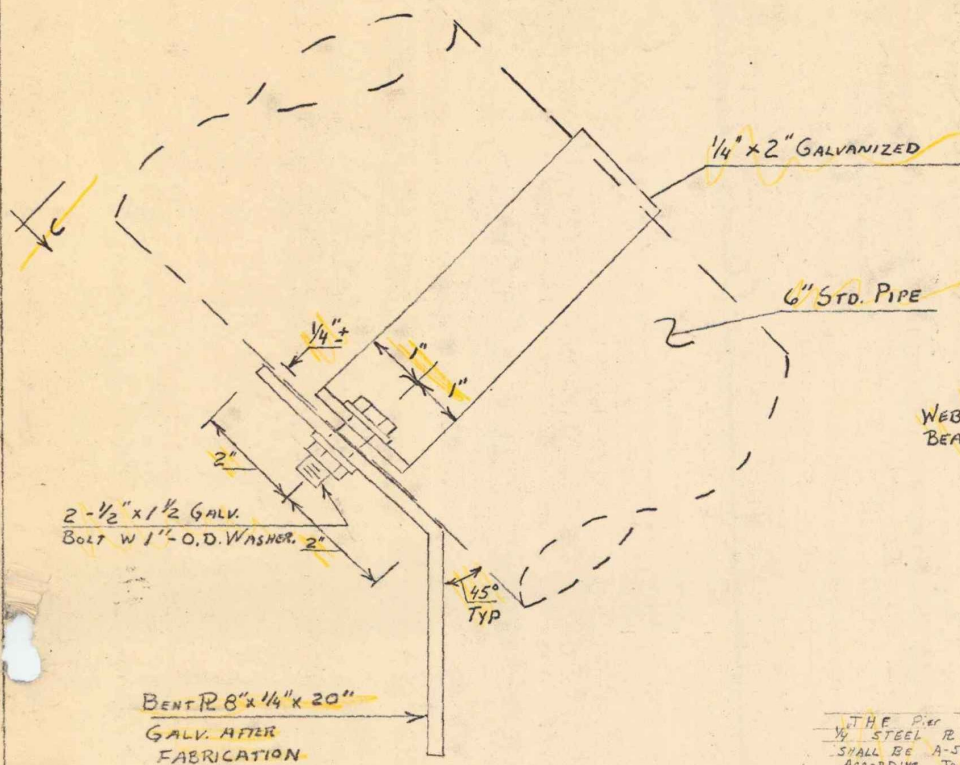
Prepared by: A. Elwood Checked by: R. P. GENDRON
SUPERVISOR: R. S. Haupt

BR 2 OF

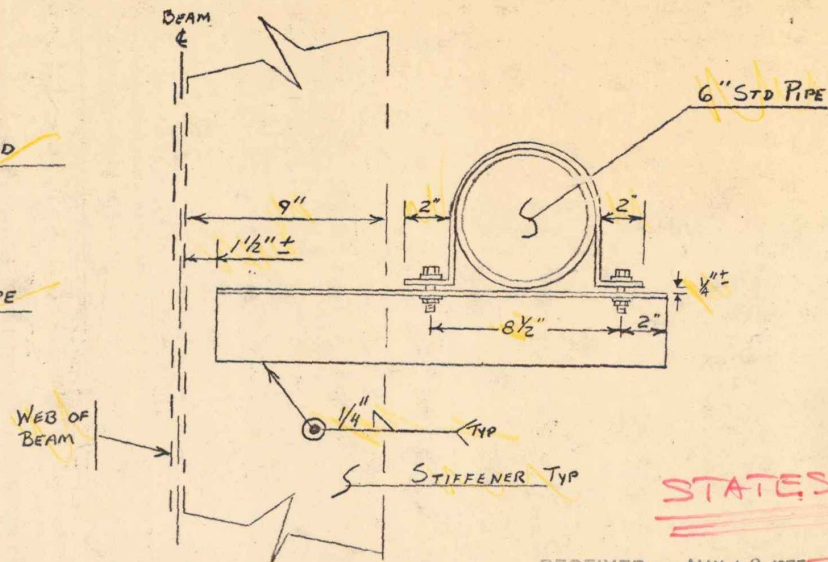
PROJECT NO. I 189-3(52)
SHEET NO. 14 OF 25

Press Mark Identification req'd.

NOTE: TWO HANGERS FOR EACH
DOWNSPOUT FIXED TO ADJACENT
STIFFNERS



DETAIL A
PIER PIPE HANGER TYP
SCALE 1/2" = 1 IN



SECTION C-C

SCALE 1 IN = 5 IN

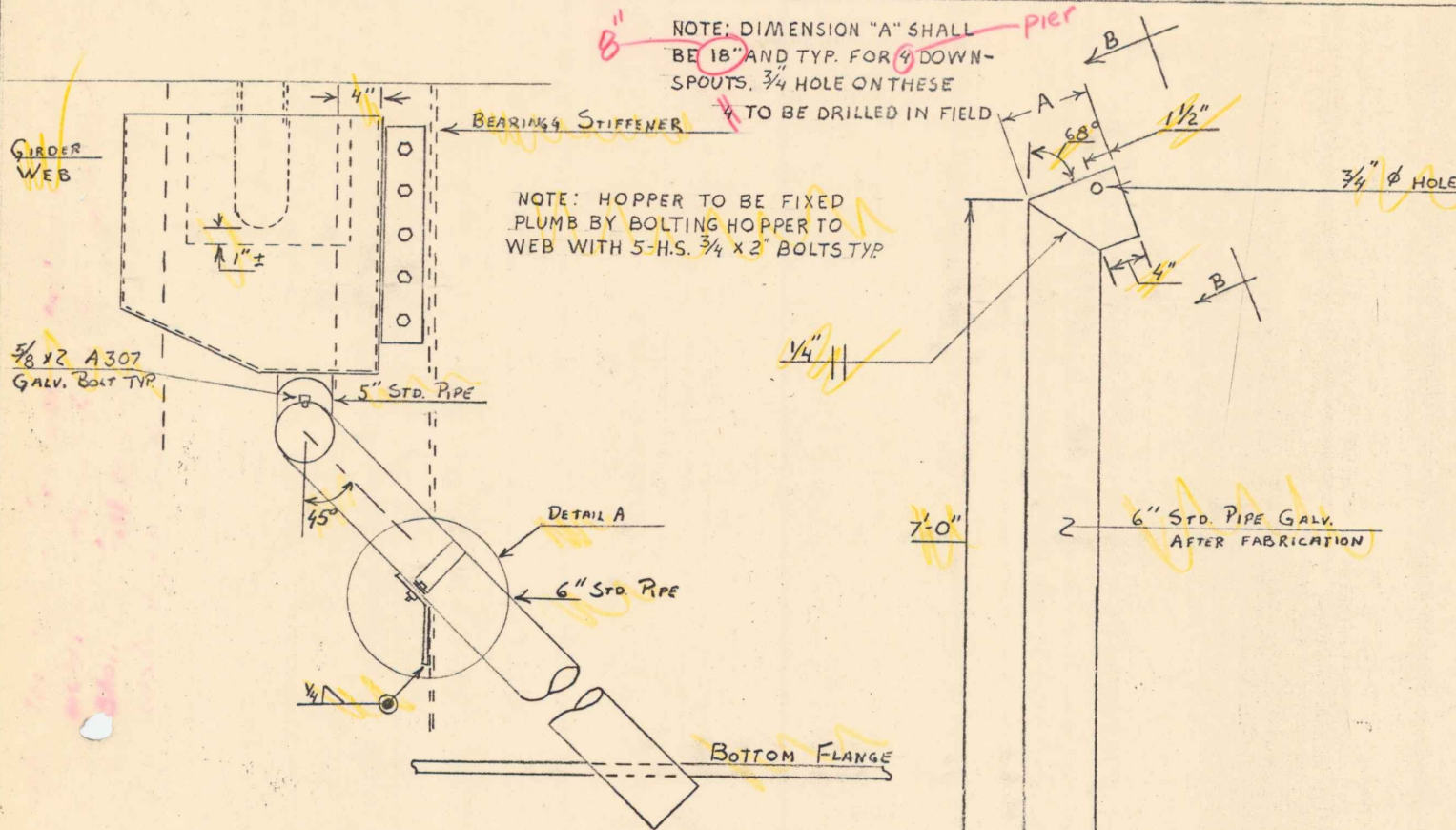
THE PIER AND ABUT HOPPERS SHALL BE FABRICATED FROM
1/4" STEEL R. ALL R'S & L'S SHALL BE A-36 STEEL & PIPE
SHALL BE A-53, AND SHALL BE GALVANIZED AFTER FABRICATION
ACCORDING TO ASTM A-123 OR ASTM A-153.

STATES COPY

RECEIVED MAY 12 1975
OK'D BY AWK OK'D BY ASH
RESUBMIT ✓ APPROVED
BY DATE 5/14/75

SHEET 1 OF 9

BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70 N #5
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I89-3(51)



ELEVATION PIER
HOPPER MOUNTING TYP.
SCALE 1 IN = 10 IN

ELEVATION PIER
DOWNSPOUT TYP.
SCALE 1 IN = 10 IN

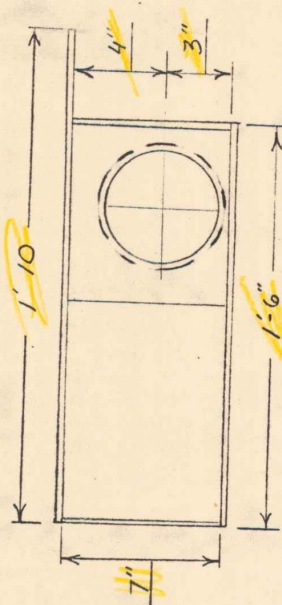
SECTION B-B
N.T.S.

RECEIVED MAY 12 1975
CK'D BY AME OK'D BY JBH
RESUBMIT ✓ APPROVED
BY DATE 5/14/75

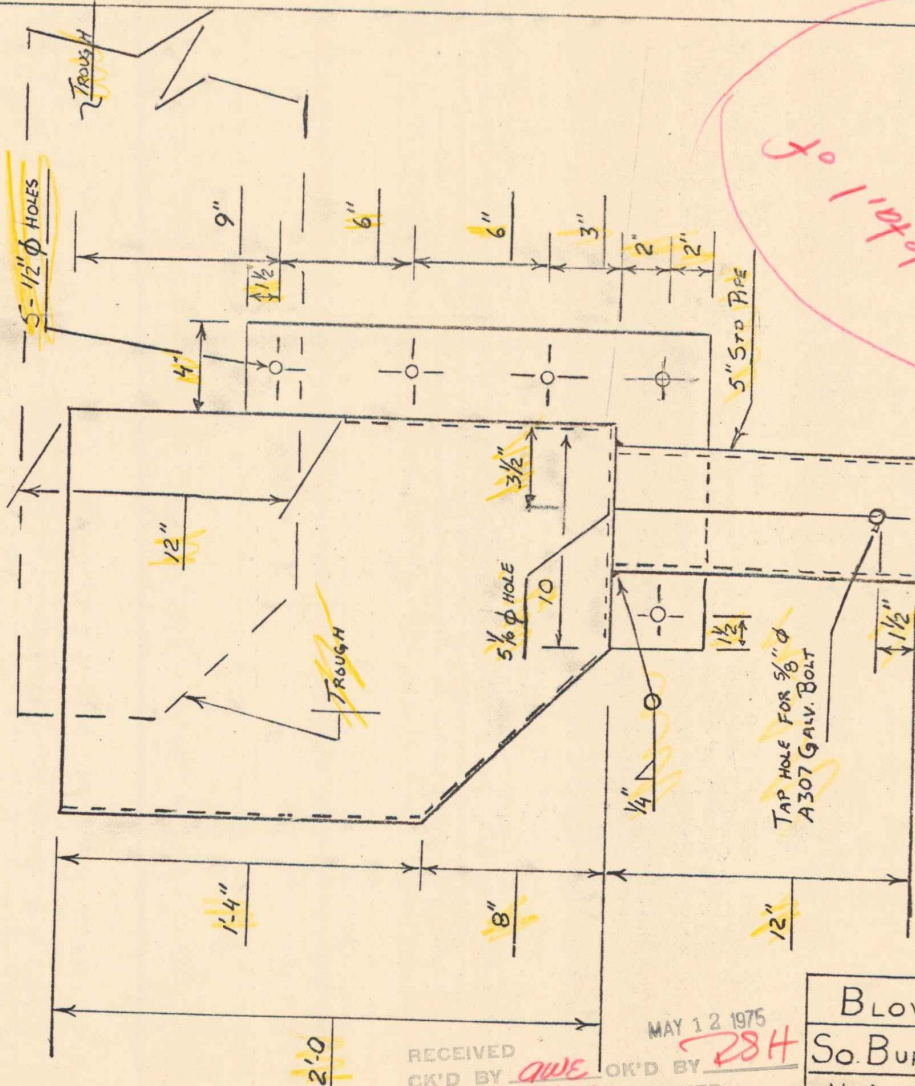
SHEET 3 OF 9

BLOW & COTE, INC	
SO. BURLINGTON	BR. 70 N#5
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I89-3(51)

Note: The fabrication welds shall be $\frac{1}{4}$ " fillet welds on the inside of the hopper and shall be full length to ensure a watertight container.



PLAN: LT ABUT HOPPER

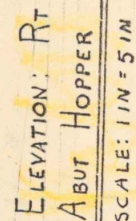
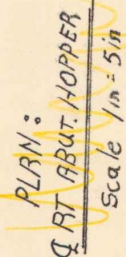


ELEVATION LT.
ABUT. HOPPER
SCALE 1 IN = 5 IN

Need detail of
down pipe
(not identical to
pier down pipe)

RECEIVED
CHK'D BY ONE
RESUBMIT ✓
BY
MAY 12 1975
OK'D BY 28H
APPROVED
DATE 5/14/75

SHEET 4 OF 9	
BLOW & COTE, INC.	
So. BURLINGTON	BR 70 N#5
N. ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I 89-3(51)



NOTE: ALL FABRICATION WELDS SHALL BE $\frac{1}{4}$ INCH ON THE INSIDE OF ALL HOPPERS AND SHALL BE FULL LENGTH

need detail of down pipe

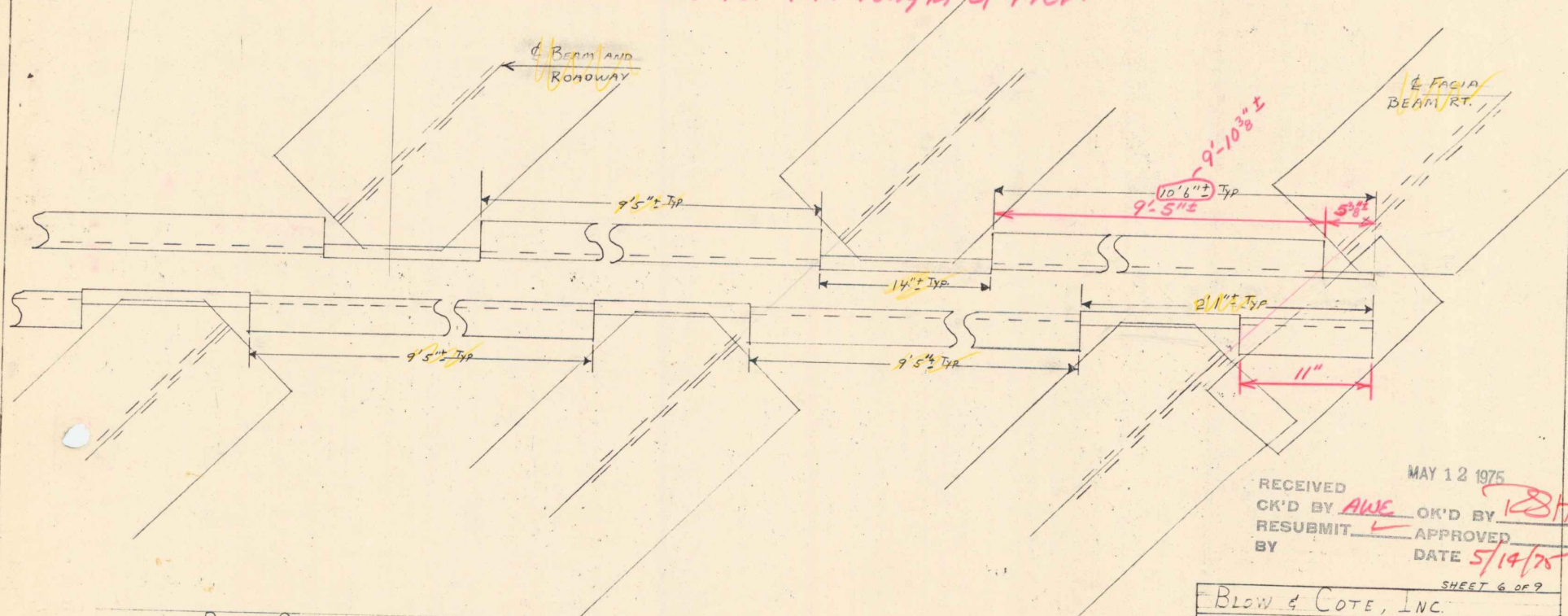
TAP FOR $\frac{5}{8}$ " Ø A307
GALV BOLT

RECEIVED MAY 12 1975
CK'D BY AME CK'D BY 18th
RESUBMIT ☒ APPROVED
BY _____ DATE 5/14/75

SHEET 5 OF 9

Blow & COTE, INC.	
So. BURLINGTON	BR. 70N & S
N. ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO: I 89-3(51)

- ① Need identification marks for each piece
- ② Need well defined reference point for dimensions (such as ϕ of Roadway)
- ③ Show plan view for full length of Pier



RECEIVED MAY 12 1975
 CK'D BY AWE OK'D BY 128H
 RESUBMIT ✓ APPROVED
 BY DATE 5/14/75

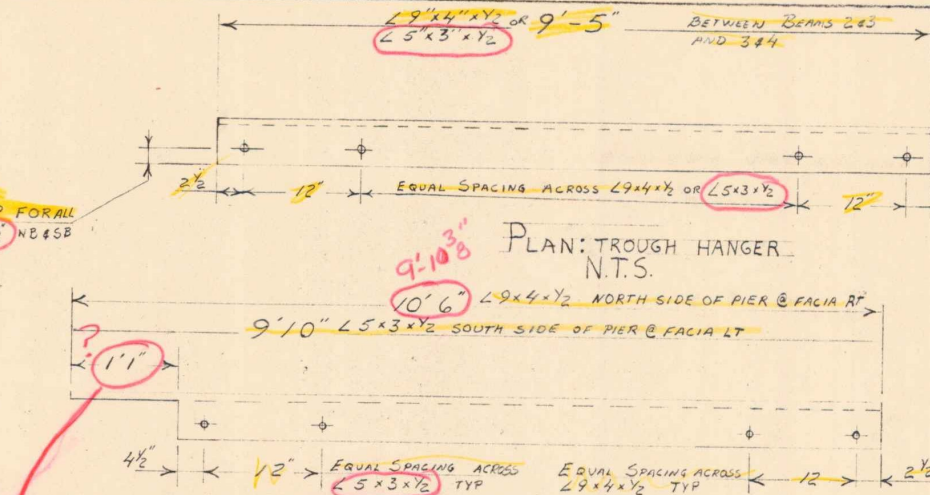
SHEET 6 OF 9

	PAINT SYSTEM
BASIC	LEAD SILICO-CHROMATE
Vt. 1.02	BASIC LEAD SILICO-CHROMATE PRIMER TYPE I
Vt. 2.02	BASIC LEAD SILICO-CHROMATE GRAY PAINT
Vt. 3.02	BASIC LEAD SILICO-CHROMATE GREEN PAINT

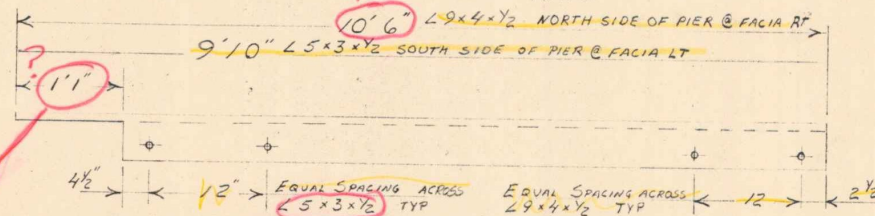
N.T.S.

PLAN @ PIERS (Typ)?

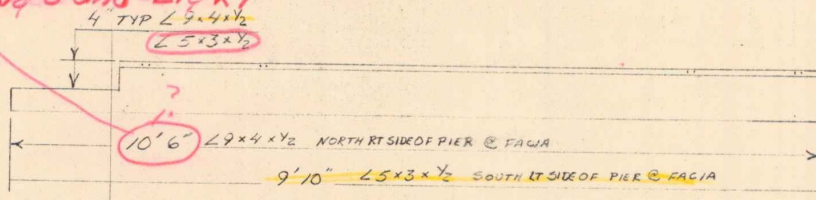
BLOW & COTE, INC.	
So BURLINGTON	BR. 70 N & S
JOINT TROUGH DETAILS	
I-89 OVER WINDOOSKI RIVER	
PROJECT: WILLISTON - COLCHESTER	PROJECT No. I-89-3(S1)



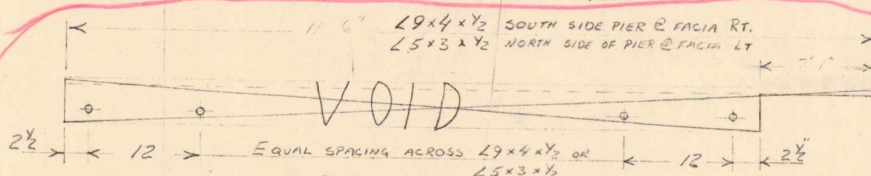
PLAN: TROUGH HANGER
N.T.S.



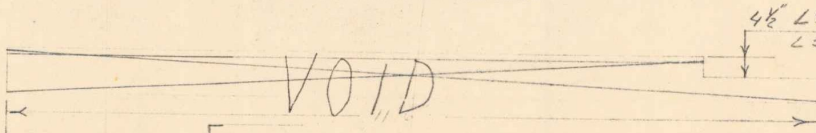
PLAN: TROUGH HANGER
N.T.S.



ELEV: TROUGH HANGER



PLAN: TROUGH HANGER



ELEV: TROUGH HANGER

BILL OF MATERIALS

SIZE	DESCRIPTION	LENGTH	NO. OF PIECES	PAINT	REMARKS
9'x4'x1/2"	ANGLE	9'5"	39	YES	PAINT SYSTEM SHEET 6 OF 9
5'x3'x1/2"	ANGLE	1'1"	12	YES	
5'x3'x1/2"	ANGLE	6'5"	52	YES	
5'x3'x1/2"	ANGLE	2'7"	26	YES	PRIMER COAT OF PAINT Applied IN SHOP
9'x4'x1/2"	ANGLE	10'6"	12	YES	
5'x3'x1/2"	ANGLE	9'10"	26	YES	
1/2"	USS STUD	1 1/2"	1220		WELD IN FIELD
1/2"	FLAT WASHER	1" O.D.	1220		PAINT AFTER ERECTION
1/2"	USS NUT	1" O.D.	1220		PAINT AFTER ERECTION
1 1/2"x1 1/2"x1/8"	ANGLE	23'1 1/2"	26	YES	
1 1/2"x1 1/2"x1/8"	ANGLE	21'7 7/8"	26	YES	
3/8"	USS STUD	1"	1185		WELD IN SHOP
3/8"	FLAT WASHER	1" O.D.	1185		PAINT AFTER ERECTION
3/8"	USS NUT	1" O.D.	1185		PAINT AFTER ERECTION
24"x1/2"	NEOPRENE FABRIC	44'	14		
1 1/2"x1/4"	BAR	11'	8		PAINT AFTER ERECTION
3/8"	ANCHOR BOLT SHIELD	13 1/4"	150	YES	
2'x10"x1/4"	PIER HOPPER	2'	24	YES	
3/4"	USS BOLT	2"	150		PAINT AFTER ERECTION
6"	STD. PIPE	7'4"	24	NO	GALV
5/8"	A307 BOLT	1"	35	NO	GALV
8"x1/4"	BENT HANGER PLATE	20"	48	NO	GALV
2"x1/4"	STRAP	20"	48	NO	GALV
1/2"	USS BOLT	1 1/2"	150	NO	GALV
1/2"	FLAT WASHER	1" O.D.	150	NO	GALV
1/2"	USS NUT	1" O.D.	150	NO	GALV
2'4"x7"	RT. ABUT HOPPER	3'4"	2	NO	GALV
6"	STD. PIPE	8'6"	4	NO	GALV
2'7"	LT. ABUT HOPPER	1'10"	2	NO	GALV
5'x3'x1/2"	RT. ANGLE BRACKET	3'	4	YES	

Identification Marks

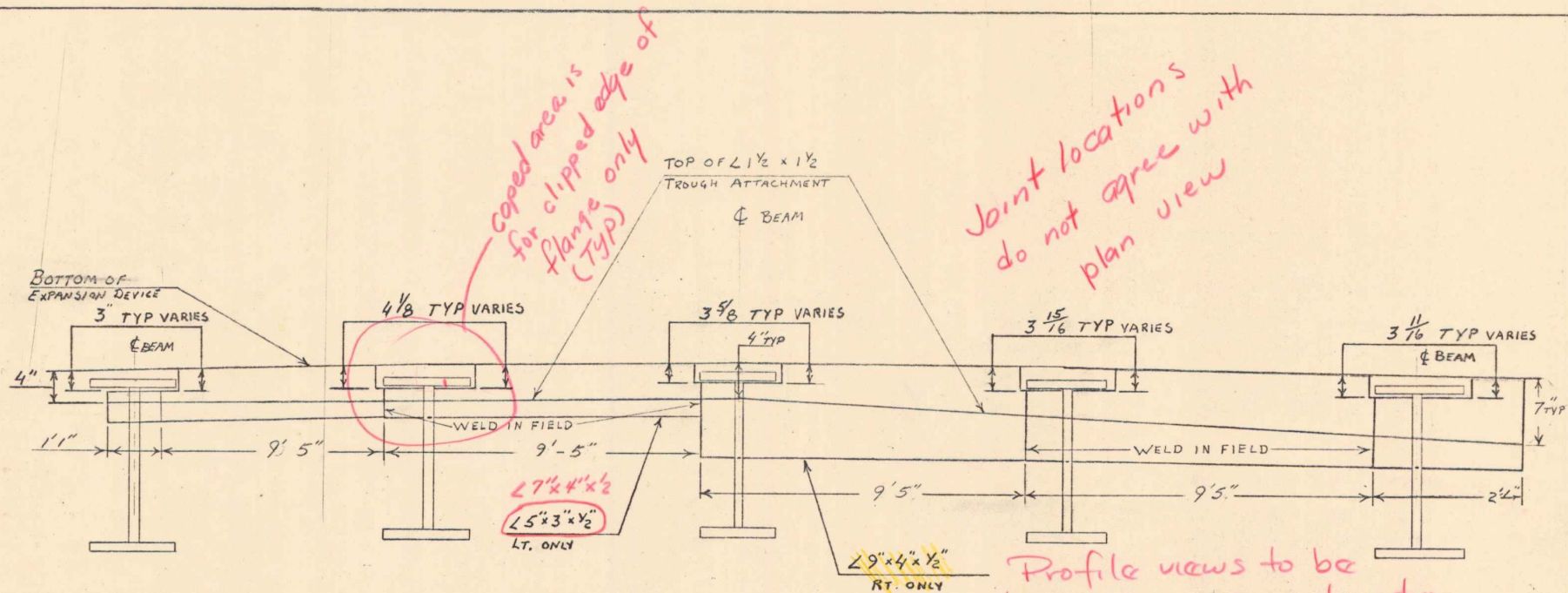
Paint in accordance with Transmittal and no test on the shop

MAY 12 1975

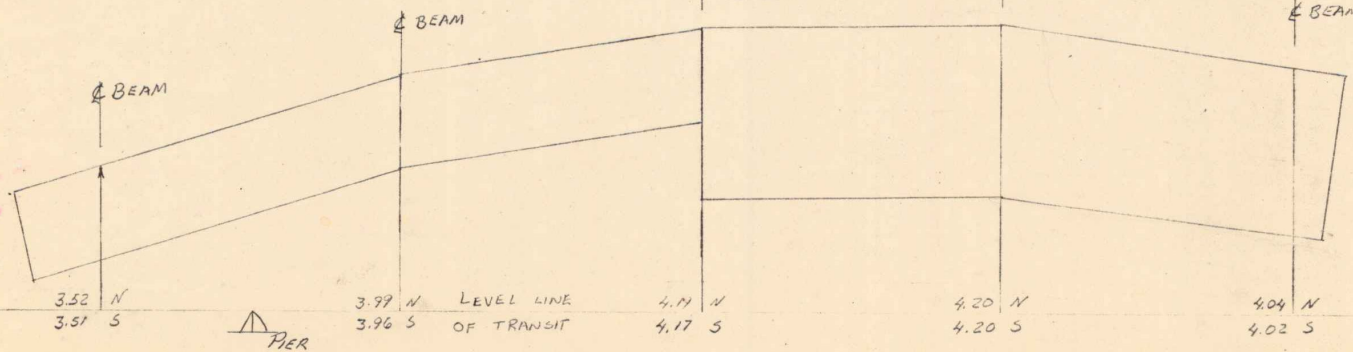
RECEIVED
CK'D BY *qwe* OK'D BY *BDH*
RESUBMIT APPROVED
BY DATE *5/14/75*

BLOW & COTE, INC.
SO. BURLINGTON BR. 70N & S
TROUGH HANGER DETAILS
PROJECT: WILLISTON - COLCHESTER PROJECT No.: I-89-3(51)

Remove



PROFILE ALONG TROUGH
BEAM & ROADWAY N.T.S. BEAM



RECEIVED MAY 12 1975
CK'D BY ONE OK'D BY FSH
RESUBMIT ✓ APPROVED
BY DATE 5/14/75

SHEET 8 of 9

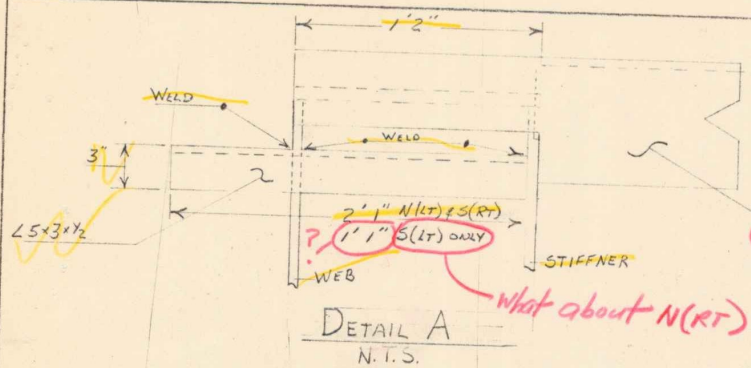
BLOW & COTE, INC.

SO. BURLINGTON BR. 70N#S

PIER TROUGH DETAILS

I89 OVER WINOOSKI RIVER

PROJECT: WILLISTON-COLCHESTER PROJECT NO. I89-3(SI)

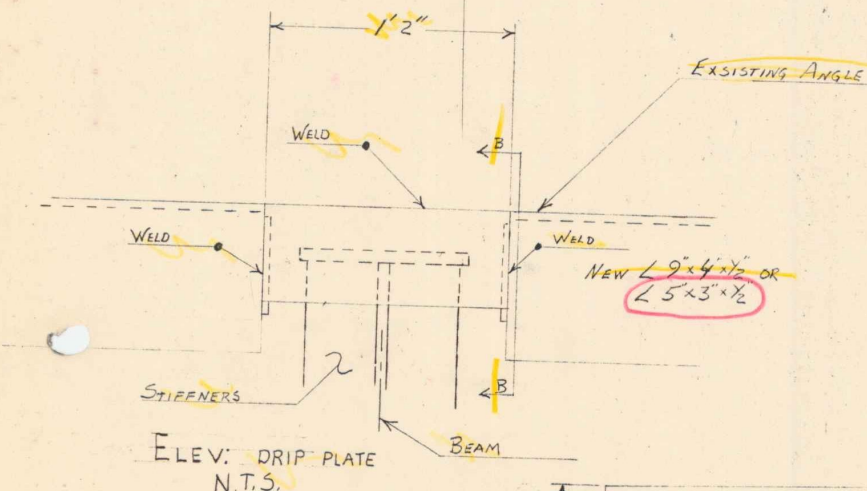


2' 9" 4" x 1/2" OR
2' 5" 3" x 1/2"

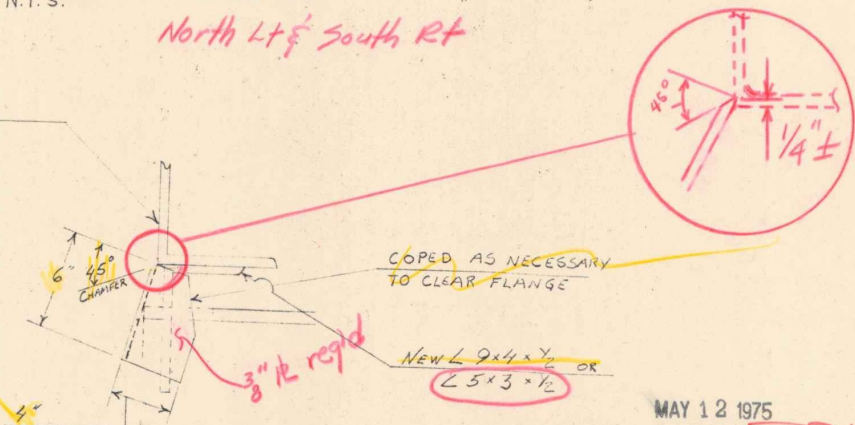
PLAN: EXTENSION 2 AT FACIA
N.T.S.

North Lt & South Rt

notch web as req'd



Show detail of
fabric trough lap at 2'



MAY 12 1975

RECEIVED
CK'D BY AWE OK'D BY RSH
RESUBMIT APPROVED
BY DATE 5/14/75
SHEET 7 OF 7

BLOW & COTE, INC	
So. BURLINGTON	BR. 70N & S
PIER TROUGH DETAILS	
I89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO.
WILLISTON-COLCHESTER	I89-3(51)

22' 1 1/2"

Increase length to obtain overlap @ 2'

PLAN: 1/8" NEOPRENE IMPREGNATED FABRIC
N.T.S.

APR 28 1975

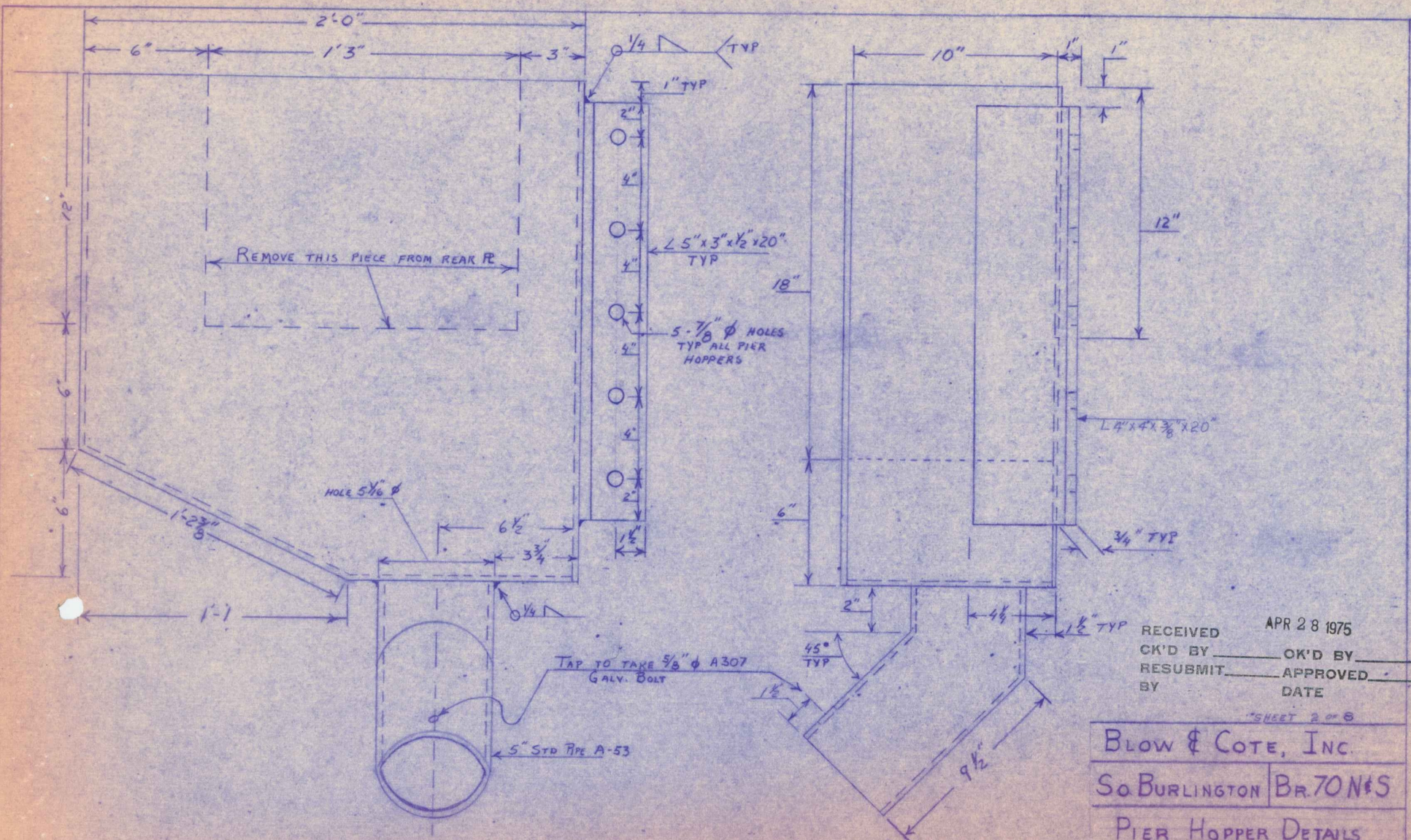
RECEIVED

CK'D BY _____ OK'D BY _____

RESUBMIT _____ APPROVED _____

BY _____ DATE _____

BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70 N & S
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT:	PROJECT NO
WILLISTON-COLCHESTER	I89-3(51)



RECEIVED APR 28 1975
 CK'D BY _____ OK'D BY _____
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

"SHEET 2 OF 8"

BLOW & COTE, INC.
 SO. BURLINGTON BR. 70N & S
 PIER HOPPER DETAILS
 I-89 OVER WINOOSKI RIVER
 PROJECT: _____ PROJECT NO. _____
 WILLISTON-COLCHESTER I-89-3(S1)

NOTE: DIMENSION "A" SHALL BE 18" AND TYP. FOR 4 DOWN-
SPOUTS. $\frac{3}{4}$ " HOLE ON THESE
4 TO BE DRILLED IN FIELD

NOTE: HOPPER TO BE FIXED
PLUMB BY BOLTING HOPPER TO
WEB WITH 5-H.S. $\frac{3}{4}$ x 2" BOLT TYP.

GIRDER
WEB

$\frac{5}{8}$ x 2 A307
GALV. BOLT TYP

BEARING STIFFENER

4"

1" ±

5" STD. PIPE

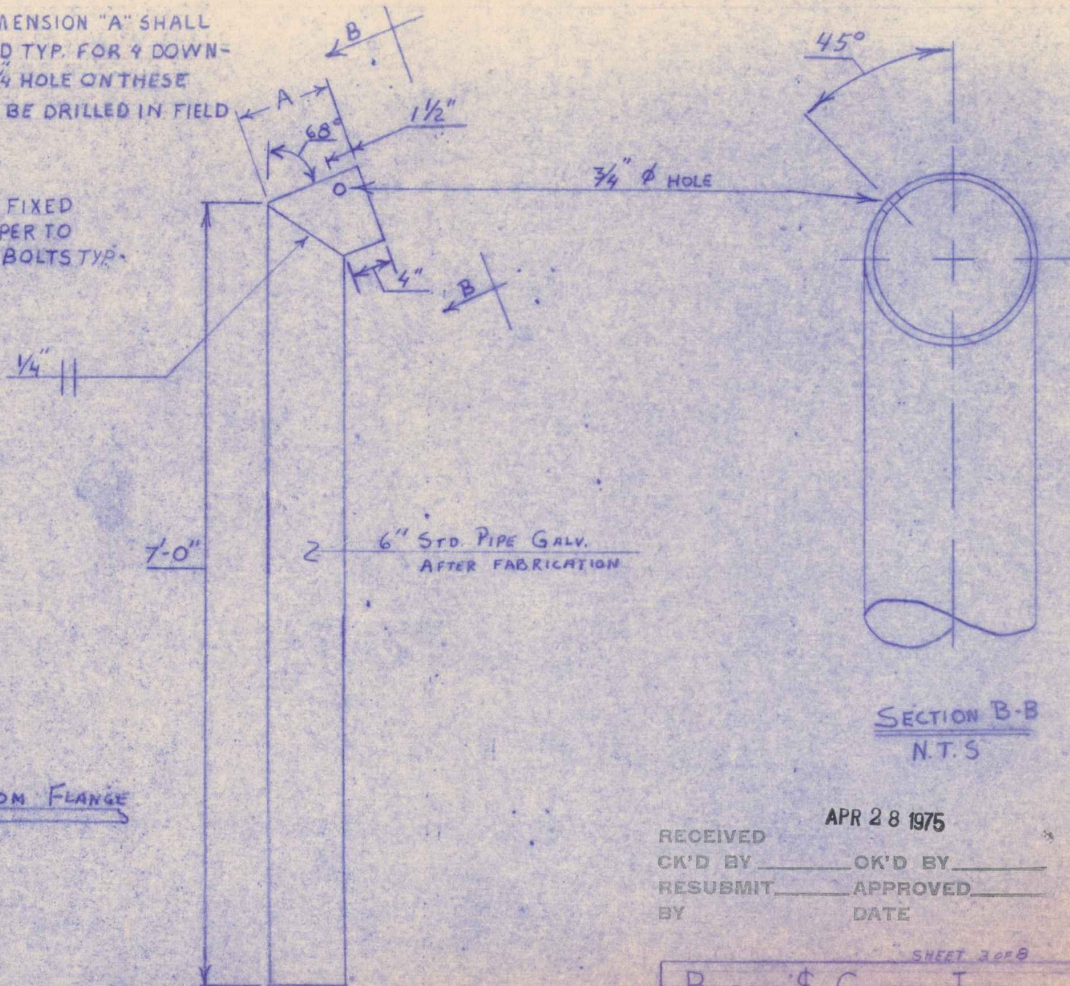
DETAIL A

6" STD. PIPE

BOTTOM FLANGE

ELEVATION PIER
HOPPER MOUNTING TYP.

SCALE 1 IN = 10 IN



ELEVATION PIER
DOWNSPOUT TYP.

SCALE 1 IN = 10 IN

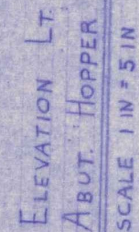
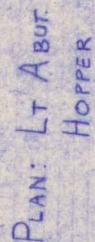
SECTION B-B
N.T.S

APR 28 1975

RECEIVED
OK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 3 OF 8

BLOW & COTE, INC	
SO. BURLINGTON	BR. 70 N#5
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT:	PROJECT NO.
WILLISTON-COLCHESTER	I89-3(51)



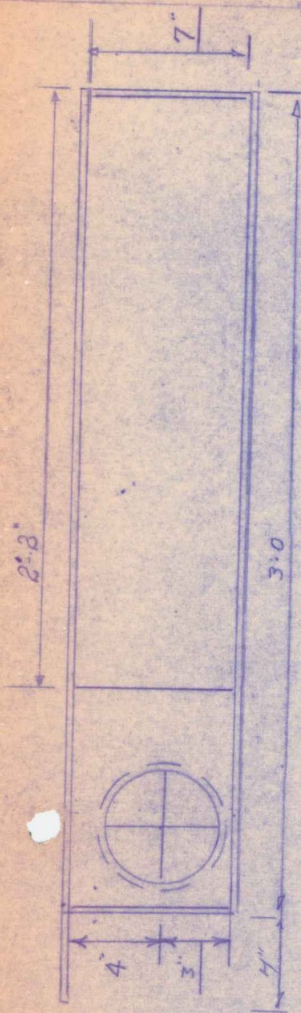
APR 28 1975

RECEIVED
OK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

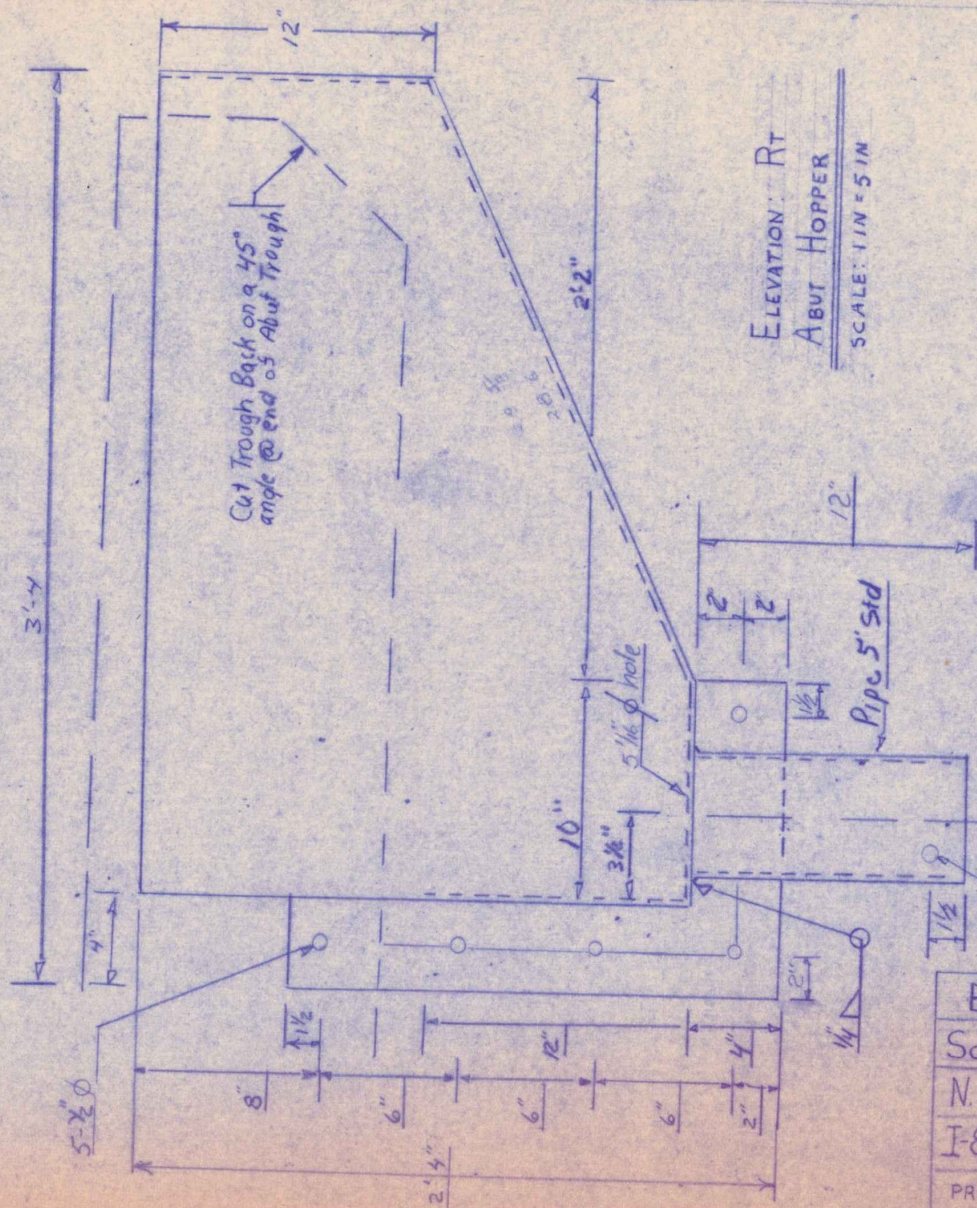
SHEET 4 OF 8

BLOW & COTE, INC.
S0 BURLINGTON BR 70 N & S
N ABUTMENT HOPPER DETAILS
I-89 OVER WINOOSKI RIVER

PROJECT:	PROJECT NO
WILLISTON-COLCHESTER	I 89-3(51)



PLAN:
Q RT ABUT. HOPPER
Scale 1/4" = 5' 0"



ELEVATION: Rt
ABUT HOPPER
SCALE: 1/4" = 5' 0"

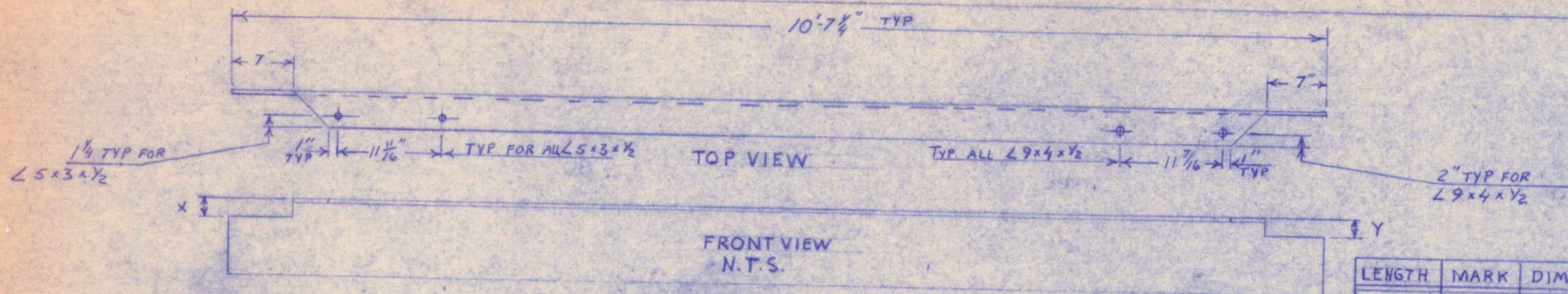
NOTE: ALL FABRICATION WELDS
SHALL BE 1/4 INCH ON THE INSIDE
OF ALL HOPPERS AND SHALL BE
FULL LENGTH

TAP FOR 5/8" Ø A307
GALV BOLT

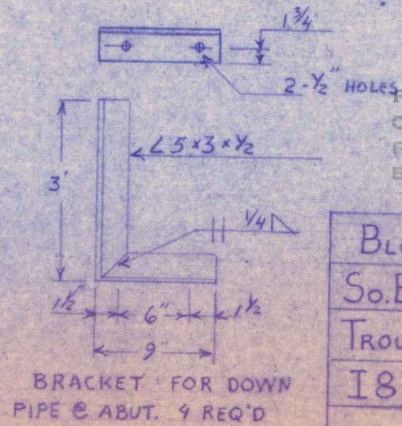
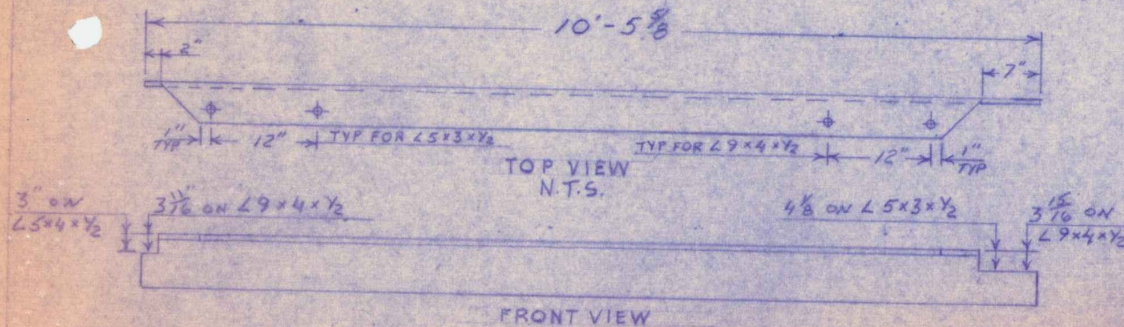
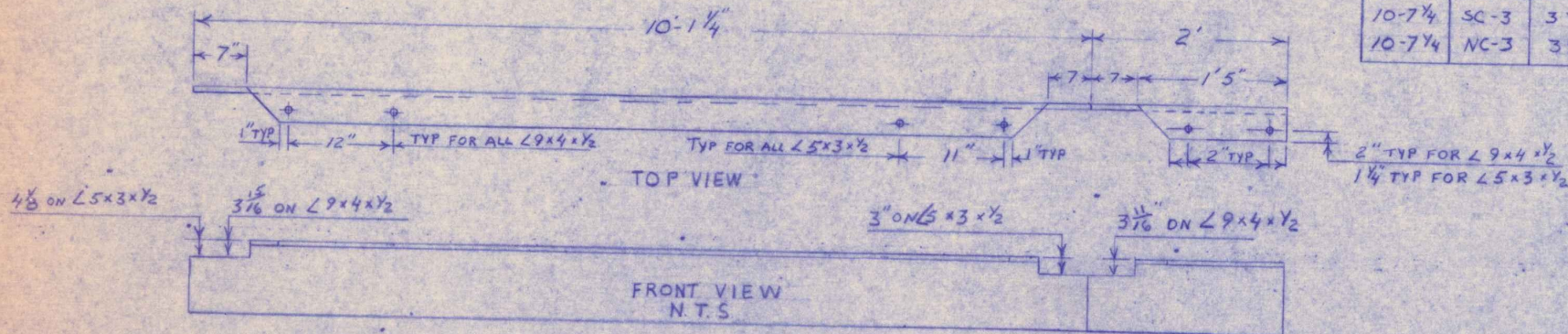
RECEIVED
CHK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 5 OF 8

BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70N & S
N. ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO: I 89-3(SI)



LENGTH	MARK	DIM X	DIM Y
10'-7 1/8"	SC-2	4 1/8"	3 5/8"
10'-7 1/8"	NC-2	3 5/8"	4 1/8"
10'-7 1/8"	SC-3	3 5/8"	3 1/16"
10'-7 1/8"	NC-3	3 5/8"	3 1/8"



RECEIVED APR 28 1975

CK'D BY _____ OK'D BY _____

RESUBMIT _____ APPROVED _____

BY _____ DATE _____

SHEET 6 OF 8

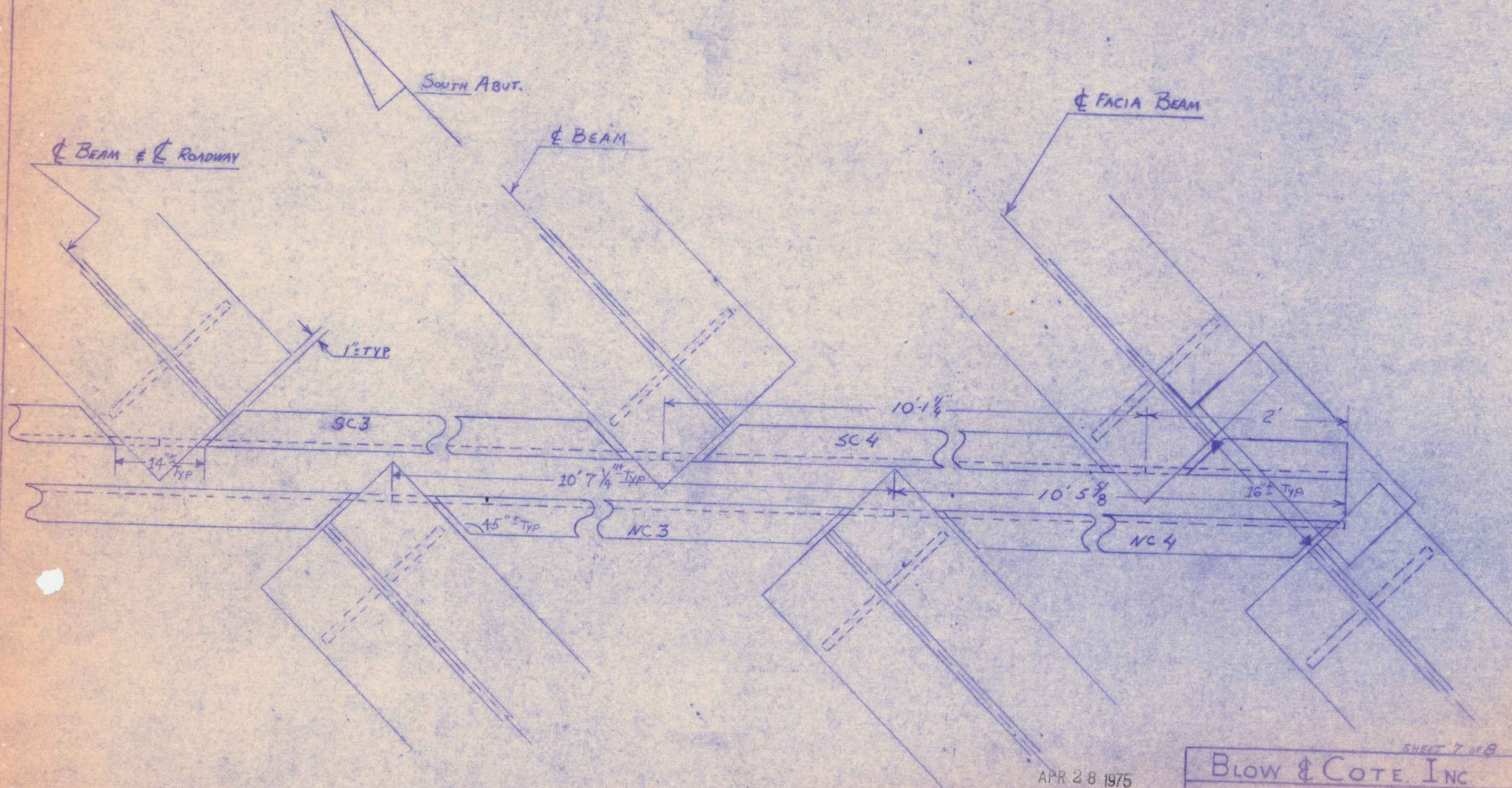
BLOW #COTE, INC

So. BURLINGTON BR 70N#5

TROUGH HANGER DETAILS

I89 OVER WINOOSKI RIVER

PROJECT: WILLISTON-COLCHESTER PROJECT NO. I89-3(51)

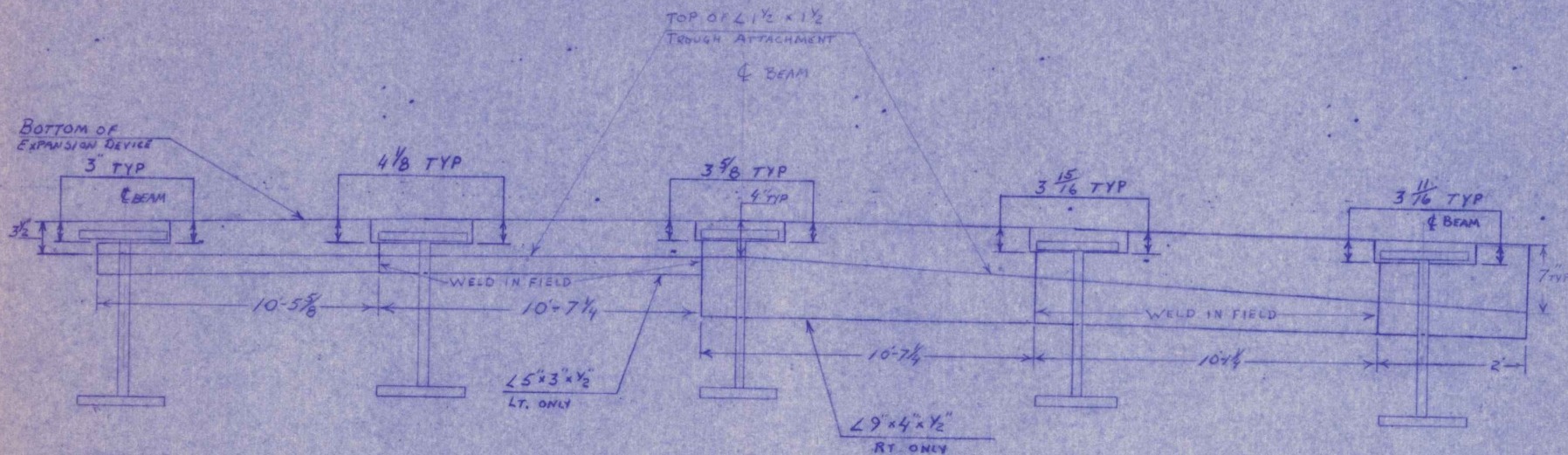


RECEIVED
 CK'D BY _____ OK'D BY _____
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

APR 28 1975

SHEET 7 OF 8

BLOW & COTE INC	
So. BURLINGTON	BR. 70 N 65
JOINT TROUGH DETAILS	
I 89 OVER WINDOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO I 89-3(51)



PROFILE ALONG TROUGH
N.T.S.

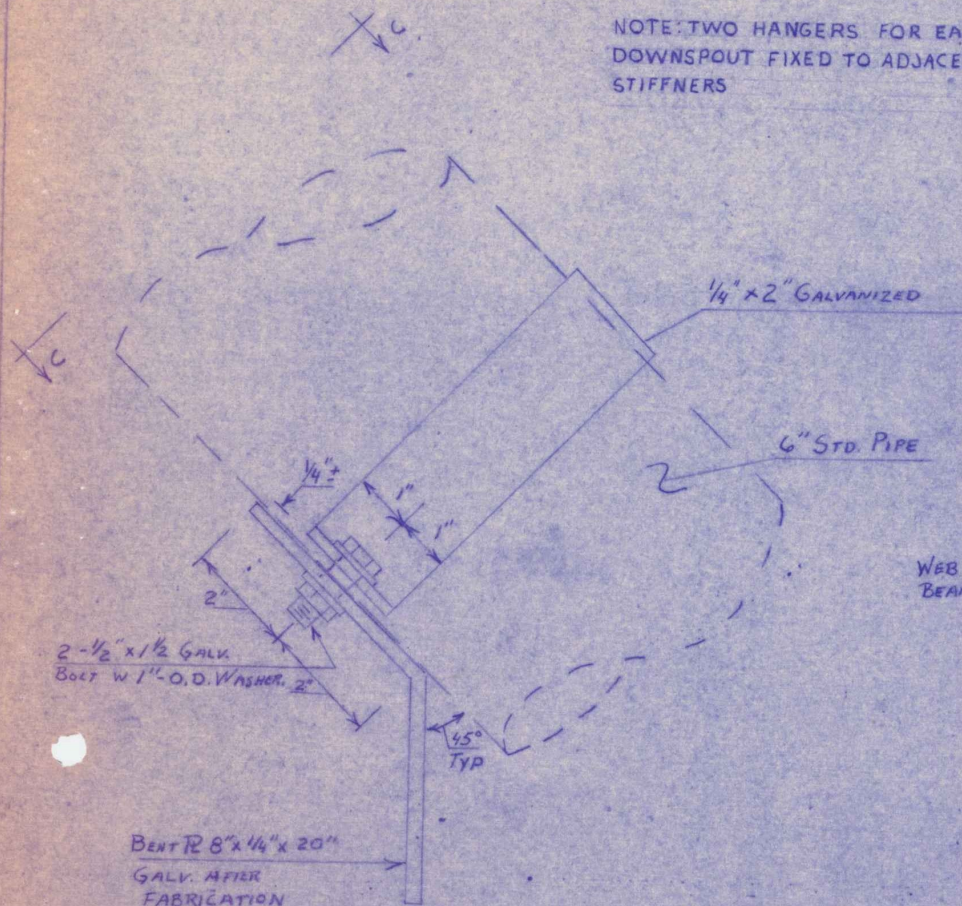
RECEIVED
CIV'D BY
RESUBMIT
BY

APR 28 1975

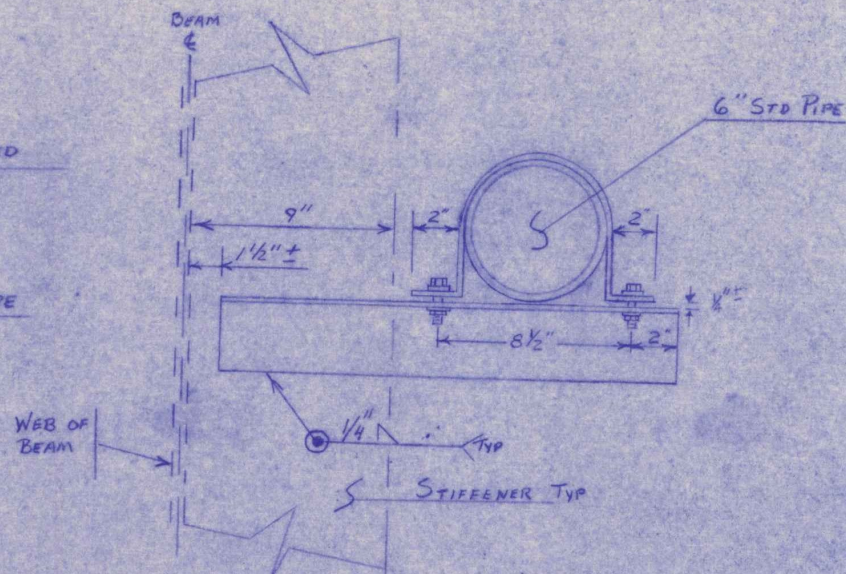
OK'D BY
APPROVED
DATE

SHEET 8 OF 8	
BLOW & COTE, INC.	
SO. BURLINGTON	BR 70N#5
PIER TROUGH DETAILS	
I89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I89-3(51)

NOTE: TWO HANGERS FOR EACH
DOWNSPOUT FIXED TO ADJACENT
STIFFNERS



DETAIL A
PIER PIPE HANGER TYP
SCALE $\frac{1}{2} = 1$ IN



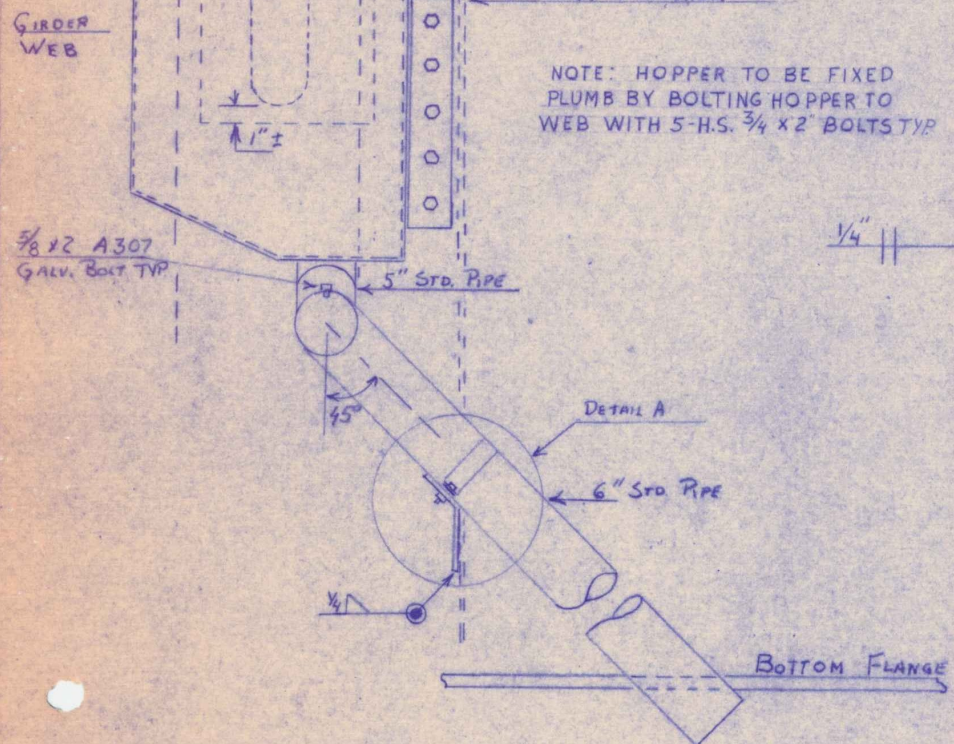
SECTION C-C
SCALE 1 IN = 5 IN

RECEIVED APR 28 1975
CK'D BY OK'D BY
RESUBMIT APPROVED
BY DATE

SHEET 1 OF 8	
BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70-N-5
PIER HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO
WILLISTON-COLCHESTER	189-3(51)

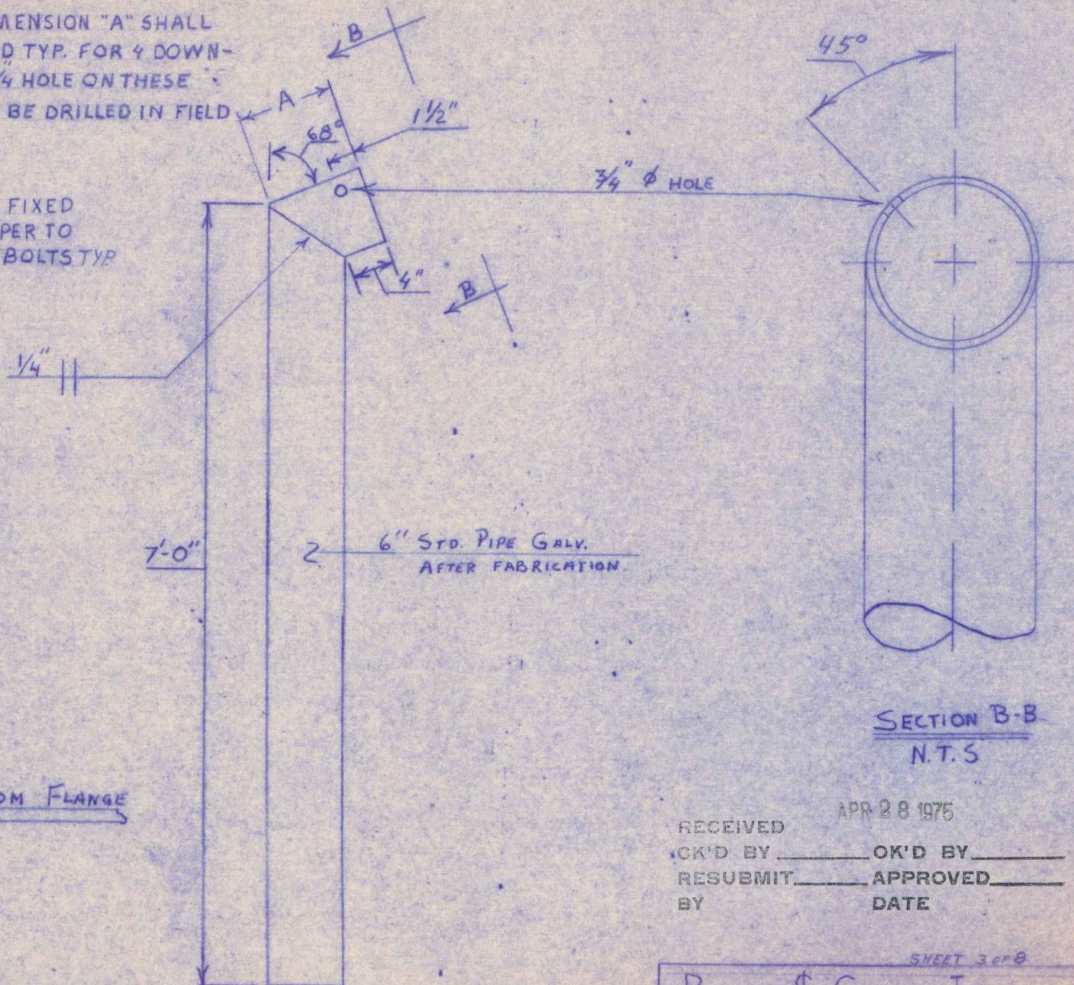
NOTE: DIMENSION "A" SHALL BE 18" AND TYP. FOR 4 DOWN-
SPOUTS. $\frac{3}{4}$ " HOLE ON THESE
4 TO BE DRILLED IN FIELD

NOTE: HOPPER TO BE FIXED
PLUMB BY BOLTING HOPPER TO
WEB WITH 5-H.S. $\frac{3}{4}$ X 2" BOLT TYP



ELEVATION PIER
HOPPER MOUNTING TYP.

SCALE 1 IN = 10 IN



ELEVATION PIER
DOWNSPOUT TYP.

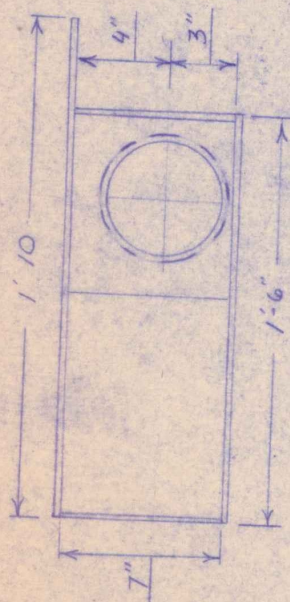
SCALE 1 IN = 10 IN

SECTION B-B
N.T.S.

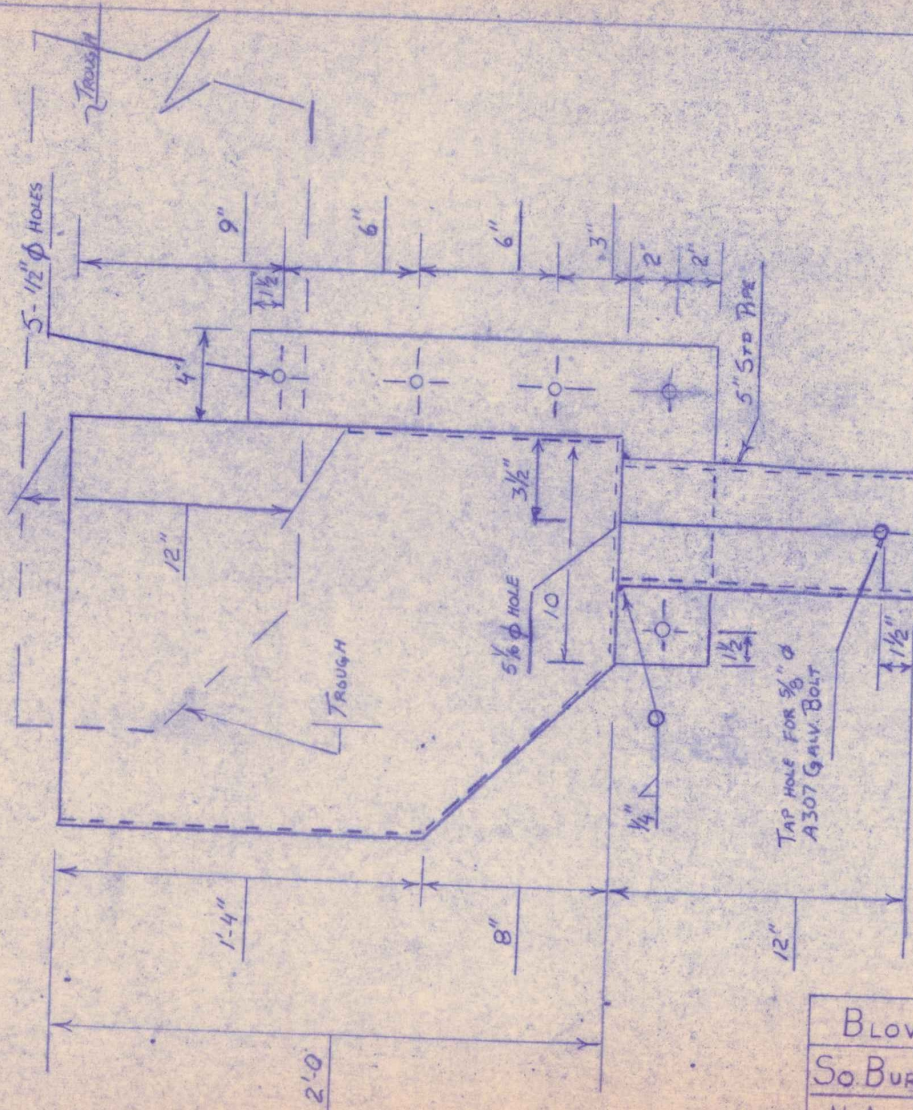
RECEIVED APR 28 1975
CHK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 3 OF 8

BLOW & COTE, INC	
50 BURLINGTON	BR. 70 N #5
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I89-3(51)



PLAN: LT ABUT
HOPPER

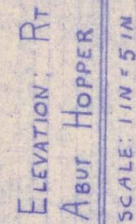


ELEVATION LT.
ABUT. HOPPER
SCALE 1 IN = 5 IN

APR 28 1975
RECEIVED
CK'D BY
RESUBMIT
BY
OK'D BY
APPROVED
DATE

SHEET 4 OF 8

BLOW & COTE, INC.	
SO. BURLINGTON	BR 70 N & S
N ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO.
WILLISTON-COLCHESTER	I 89-3(51)



NOTE: ALL FABRICATION WELDS SHALL BE 1/4 INCH ON THE INSIDE OF ALL HOPPERS AND SHALL BE FULL LENGTH

TAP FOR $\frac{5}{8}$ " ϕ A307
GALV BOLT.

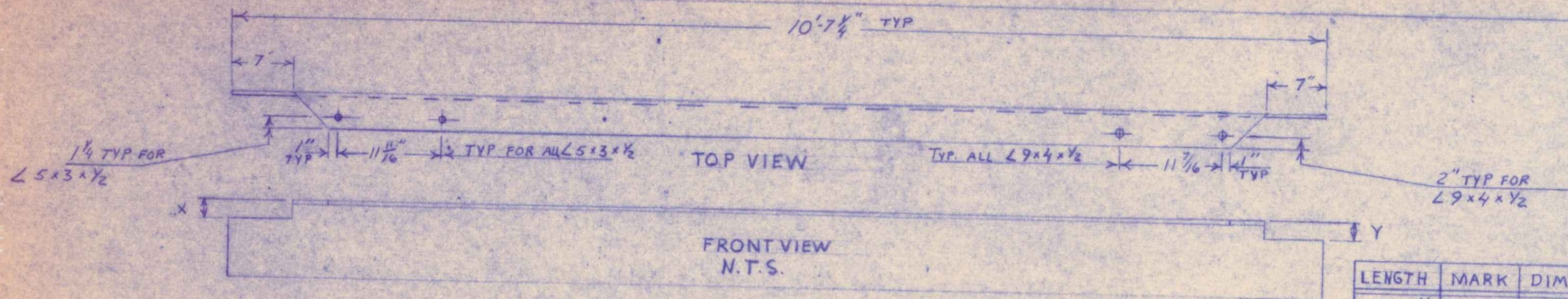
APR 28 1975

RECEIVED
CK'D BY
RESUBMIT
BY

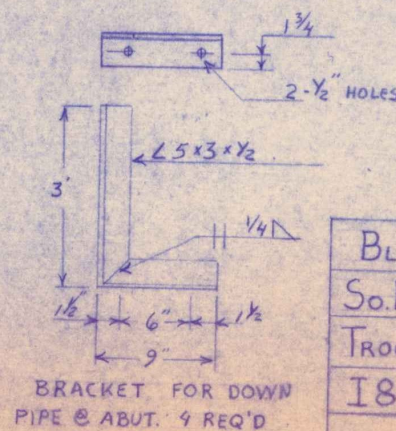
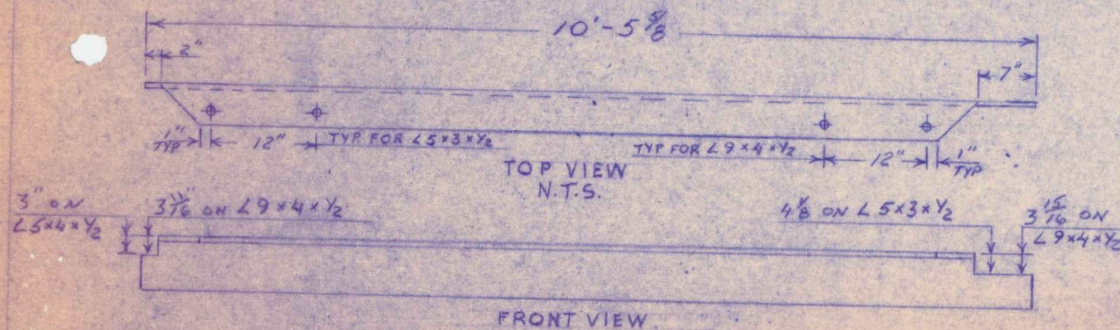
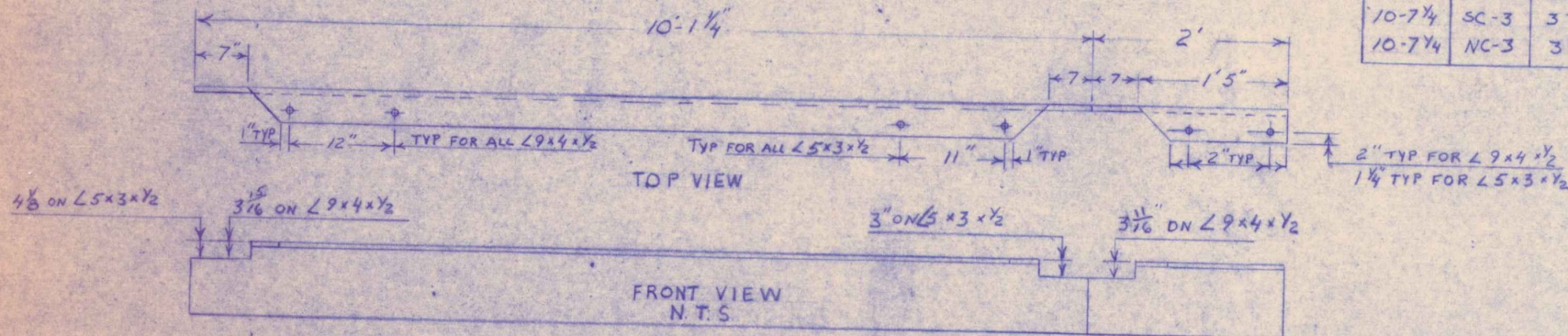
OK'D BY _____
APPROVED _____
DATE _____

SHEET 5 OF 8

BLOW #COTE, INC.	
SO. BURLINGTON	BR 70N #S
N. ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO:
WILLISTON-COLCHESTER	I 89-3(51)

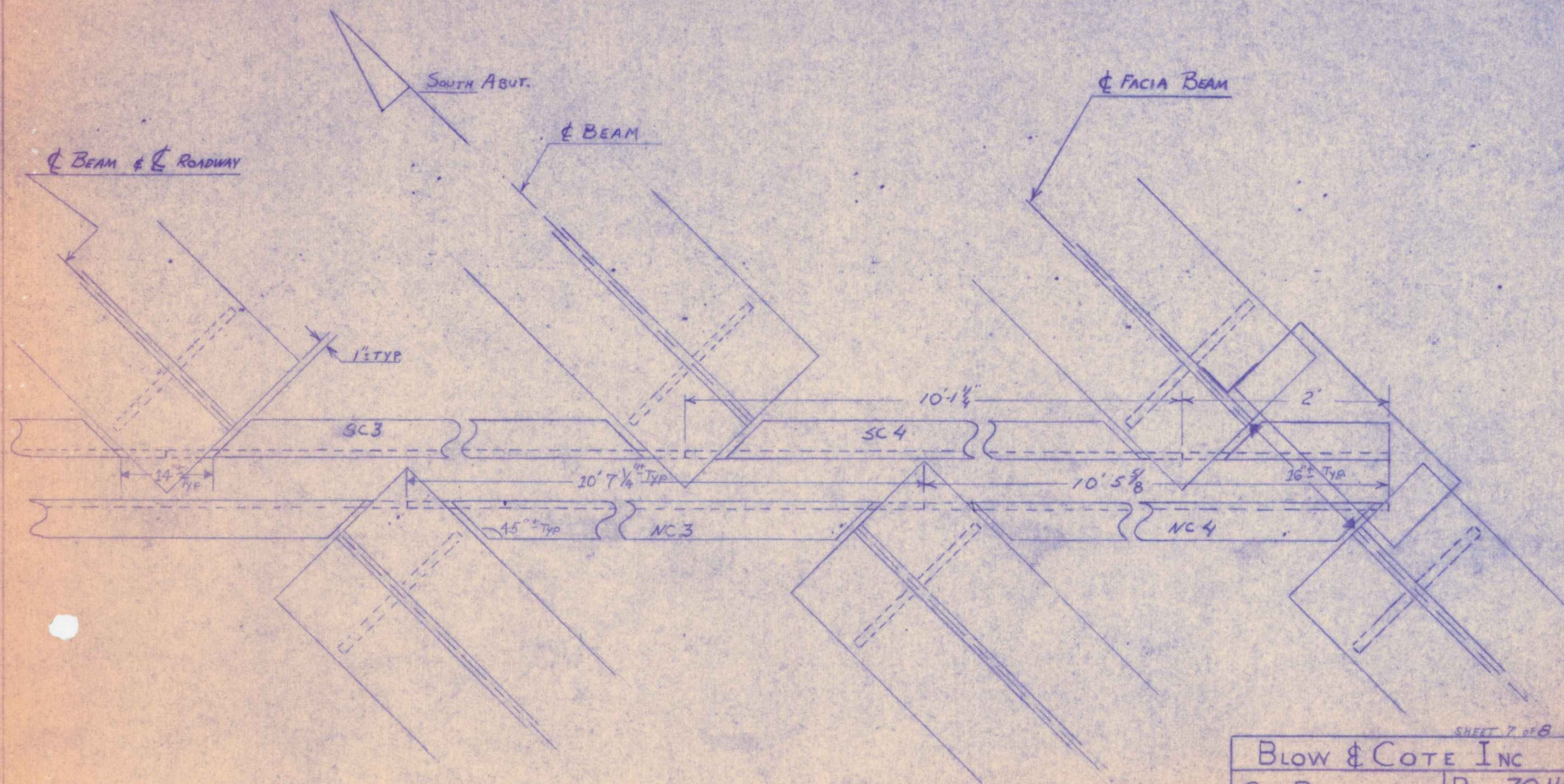


LENGTH	MARK	DIM X	DIM Y
10-7 1/4	SC-2	4 1/8	3 5/8
10-7 1/4	NC-2	3 5/8	4 1/8
10-7 1/4	SC-3	3 5/8	3 1/16
10-7 1/4	NC-3	3 1/8	3 5/8



RECEIVED APR 28 1975
 CK'D BY _____ OK'D BY _____
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

SHEET 6 OF 8
BLOW & COTE, INC
 So. BURLINGTON BR 70N & S
 TROUGH HANGER DETAILS
 I89 OVER WINOOSKI RIVER
 PROJECT: WILLISTON-COLCHESTER PROJECT NO: I89-3(51)

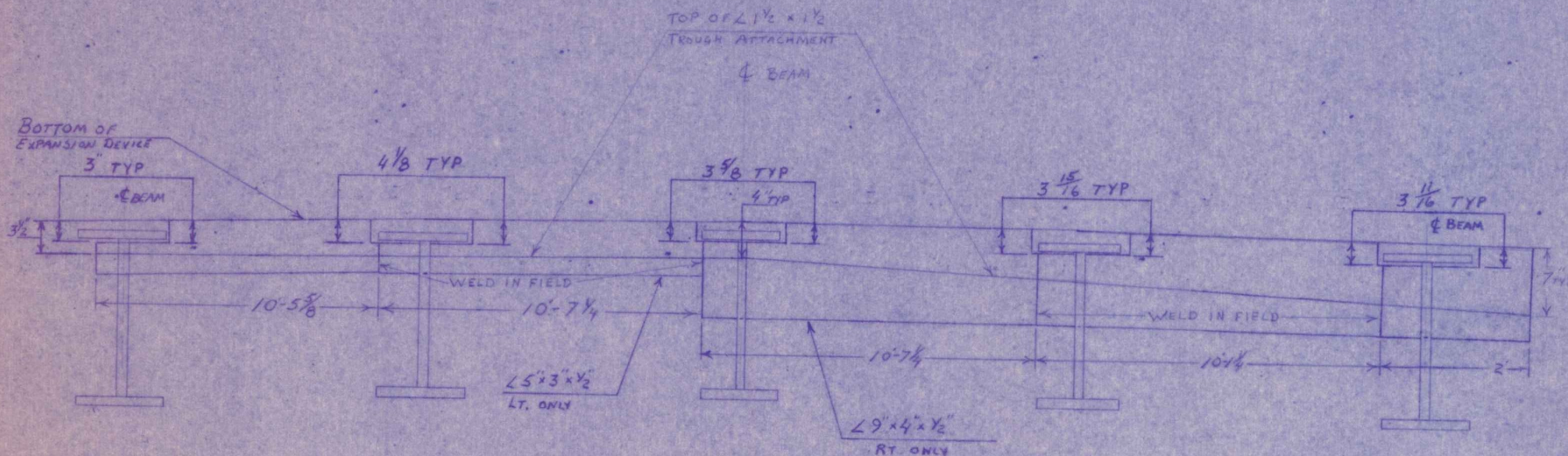


APR 28 1976

RECEIVED
 CK'D BY _____ OK'D BY _____
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

SHEET 7 OF 8

BLOW & COTE INC	
So. BURLINGTON	Br. 70 N/S
JOINT TROUGH DETAILS	
I 89 OVER WINDOSKI RIVER.	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO I 89-3(5)



PROFILE ALONG TROUGH
N.T.S.

SHEET 8 of 8

BLOW & COTE, INC

SO. BURLINGTON BR 70N & S

PIER TROUGH DETAILS

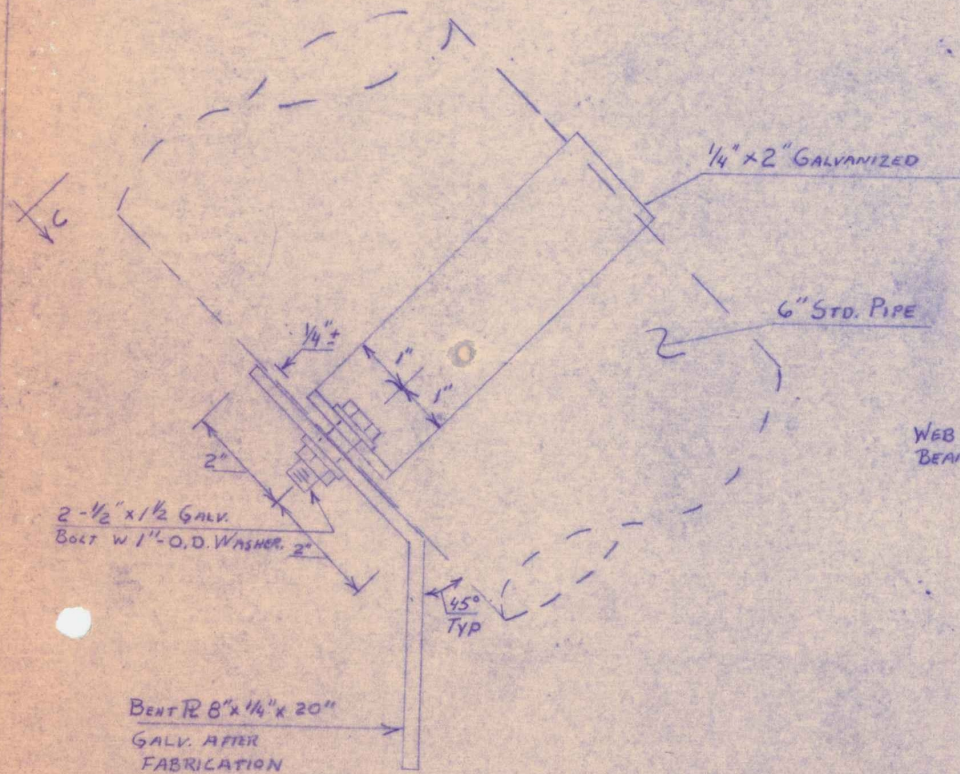
I89 OVER WINOOSKI RIVER

PROJECT: WILLISTON-COLCHESTER PROJECT NO. I89-3(51)

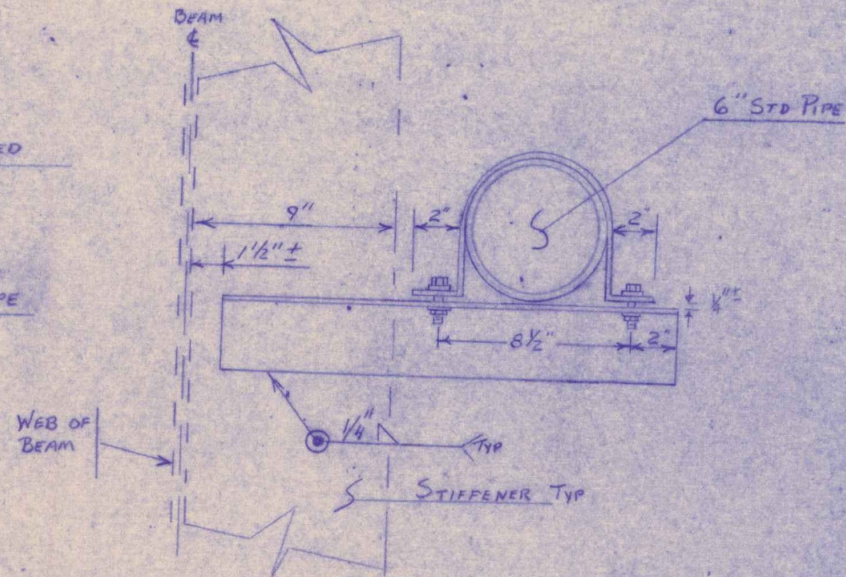
APR 28 1975

RECEIVED
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

NOTE: TWO HANGERS FOR EACH
DOWNSPOUT FIXED TO ADJACENT
STIFFNERS



DETAIL A
PIER PIPE HANGER TYP
SCALE 1/2" = 1" IN

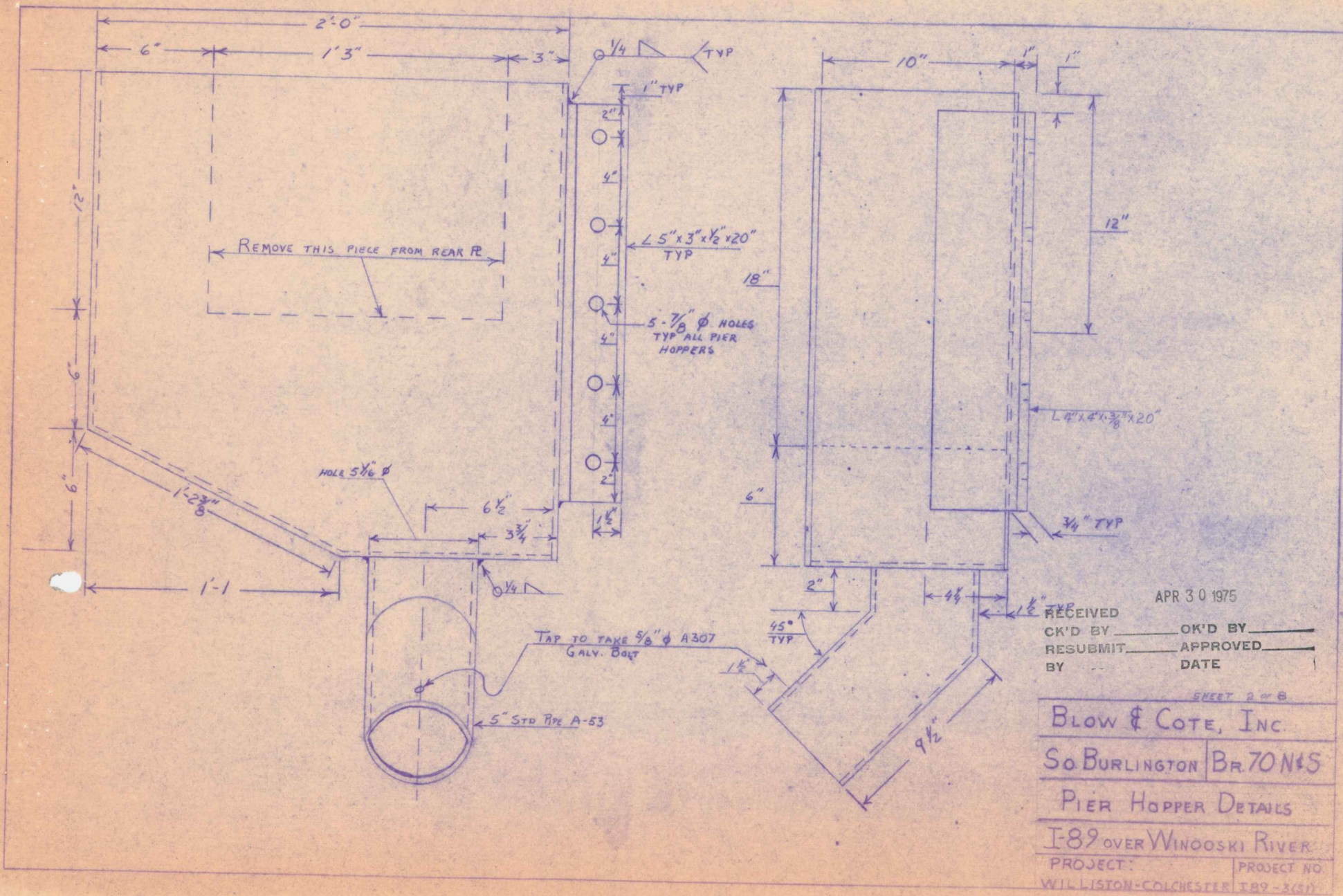


SECTION C-C
SCALE 1" = 5" IN

RECEIVED APR 30 1975
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 1 OF 8

BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70N45
PIER HOPPER DETAILS	
I-89 OVER WINDOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO 189-3(51)



APR 30 1975

RECEIVED
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 2 OF 6

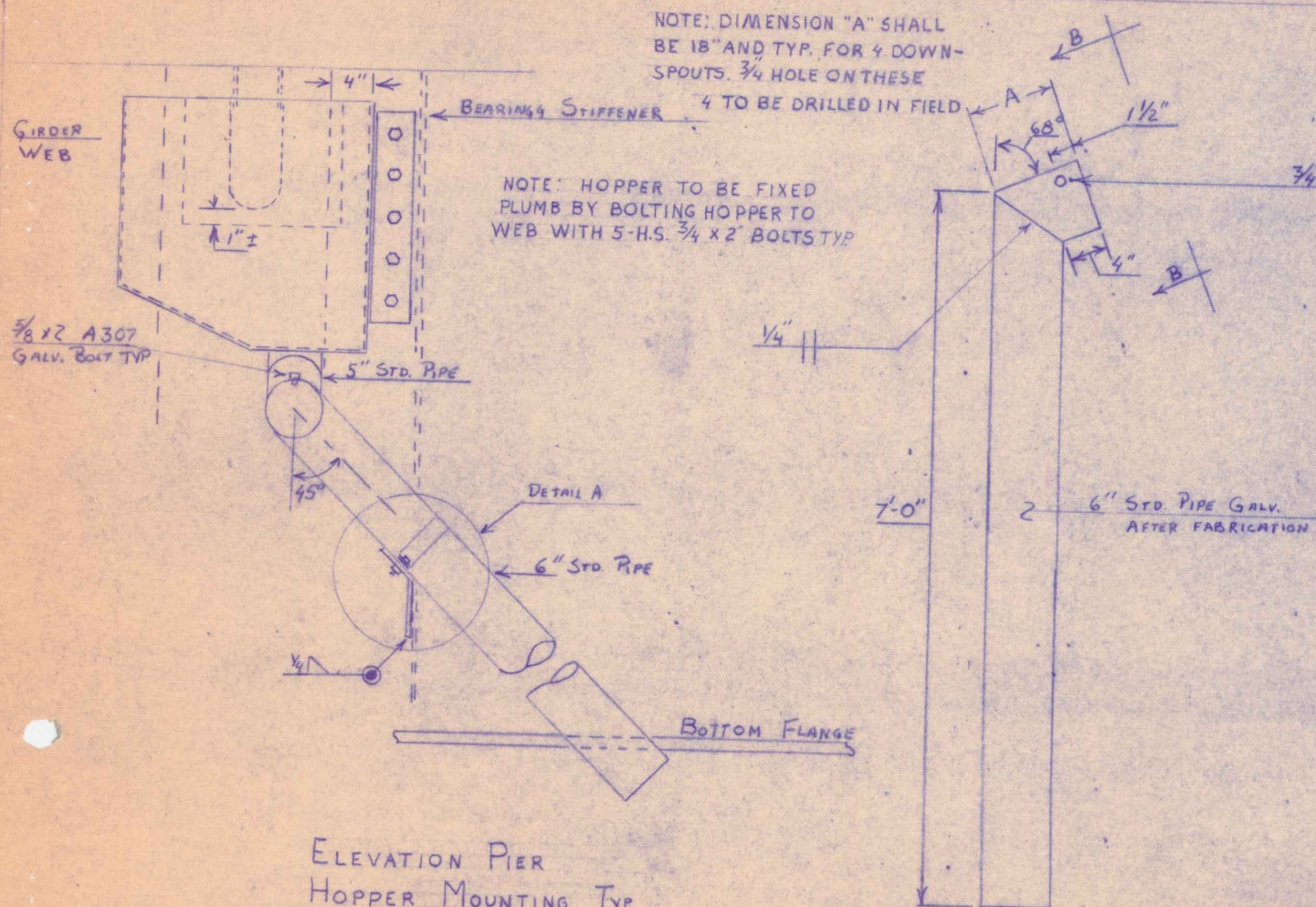
BLOW & COTE, INC.

SO. BURLINGTON BR. 70 N45

PIER HOPPER DETAILS

I-89 OVER WINOOSKI RIVER

PROJECT:	PROJECT NO.
WILLISTON-COLCHESTER	IR9-3(51)



ELEVATION PIER
HOPPER MOUNTING TYP.

SCALE 1 IN = 10 IN

ELEVATION PIER
DOWNSPOUT TYP.

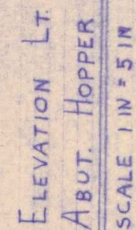
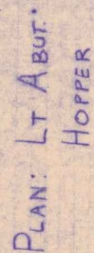
SCALE 1 IN = 10 IN

SECTION B-B
N.T.S.

RECEIVED APR 30 1975
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

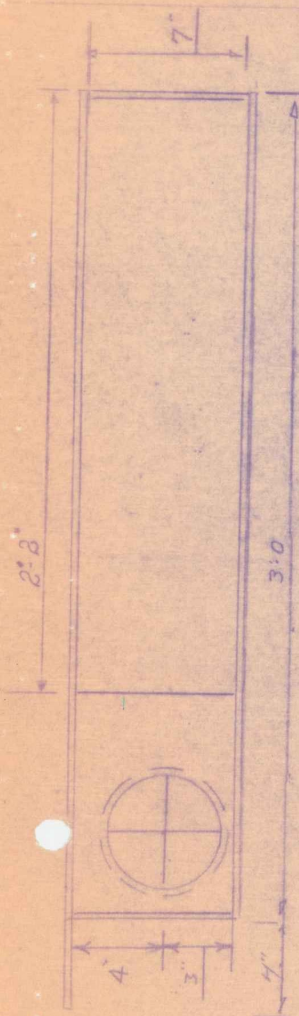
SHEET 3 OF 8

BLOW & COTE, INC
50 BURLINGTON BR. 70 N#5
PIER HOPPER DETAILS
I-89 OVER WINDOSKI RIVER
PROJECT: WILLISTON-COLCHESTER PROJECT NO. I89-3(51)

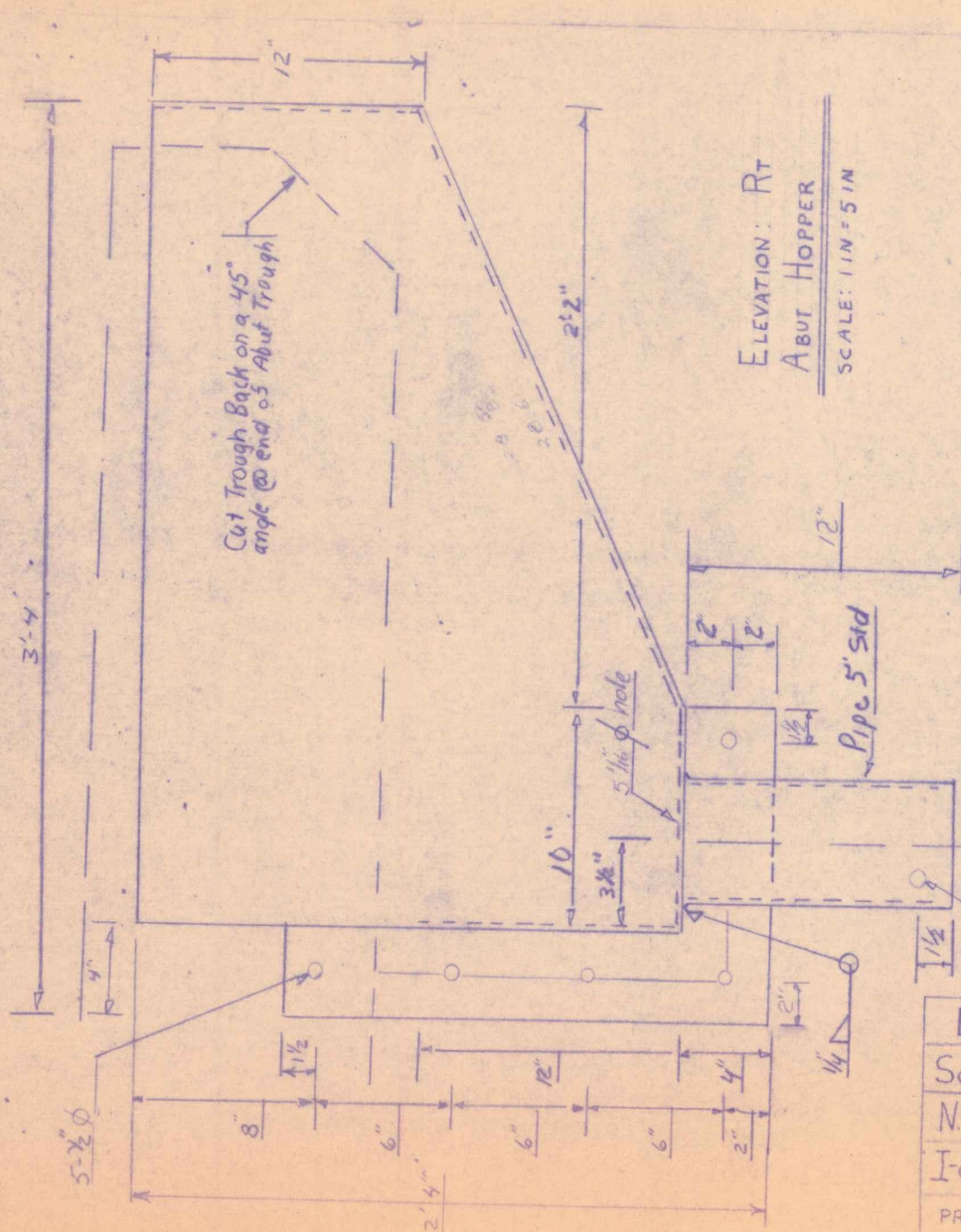


RECEIVED
OK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

BLOW & COTE, INC.	
SO BURLINGTON	BR 70 N & S
N ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO
WILLISTON-COLCHESTER	I-89-3(51)



PLAN:
Q RT ABUT. HOPPER
Scale 1/4" = 5' 0"



ELEVATION: R_T
ABUT HOPPER
SCALE: 1/4" = 5' 0"

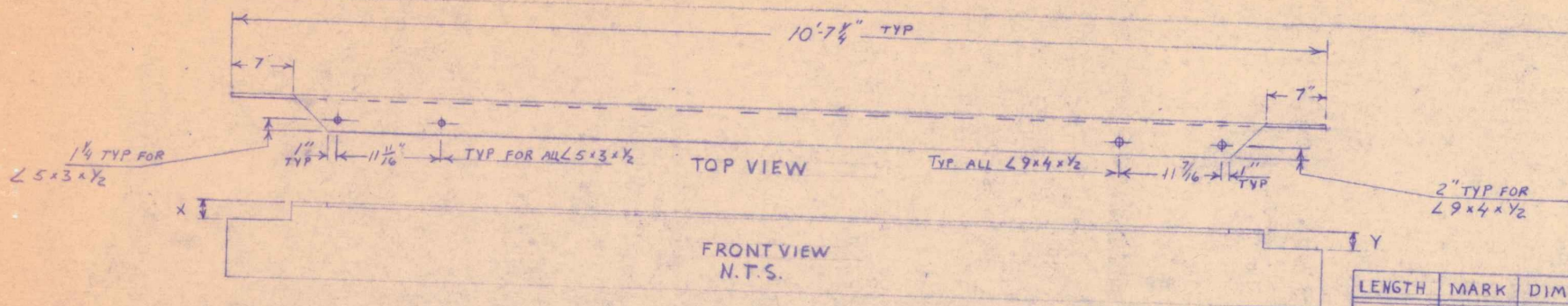
NOTE: ALL FABRICATION WELDS
SHALL BE 1/4" INCH ON THE INSIDE
OF ALL HOPPERS AND SHALL BE
FULL LENGTH

TAP FOR 5/8" x A307
GALV BOLT

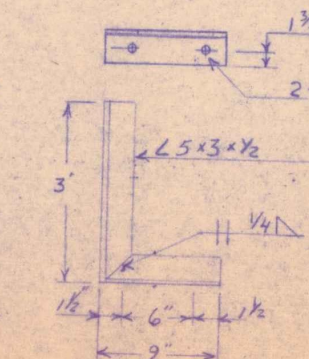
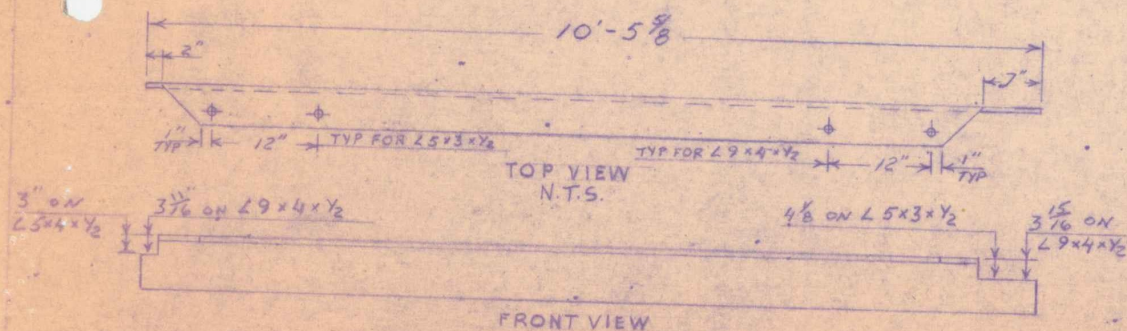
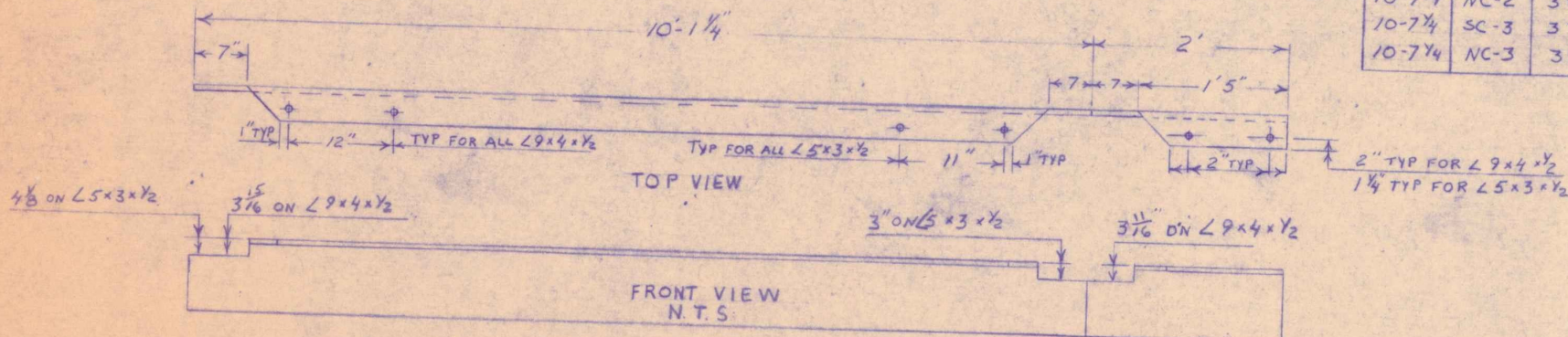
RECEIVED APR 30 1975
CHK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 5 OF 8

BLOW & COTE, INC.	
SO. BURLINGTON	BR. 70N & S
N. ABUTMENT HOPPER DETAILS	
I-89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO: I 89-3(51)



LENGTH	MARK	DIM X	DIM Y
10'-7 1/4"	SC-2	4 1/8"	3 5/8"
10'-7 1/4"	NC-2	3 5/8"	4 1/8"
10'-7 1/4"	SC-3	3 5/8"	3 11/16"
10'-7 1/4"	NC-3	3 5/8"	3 5/8"

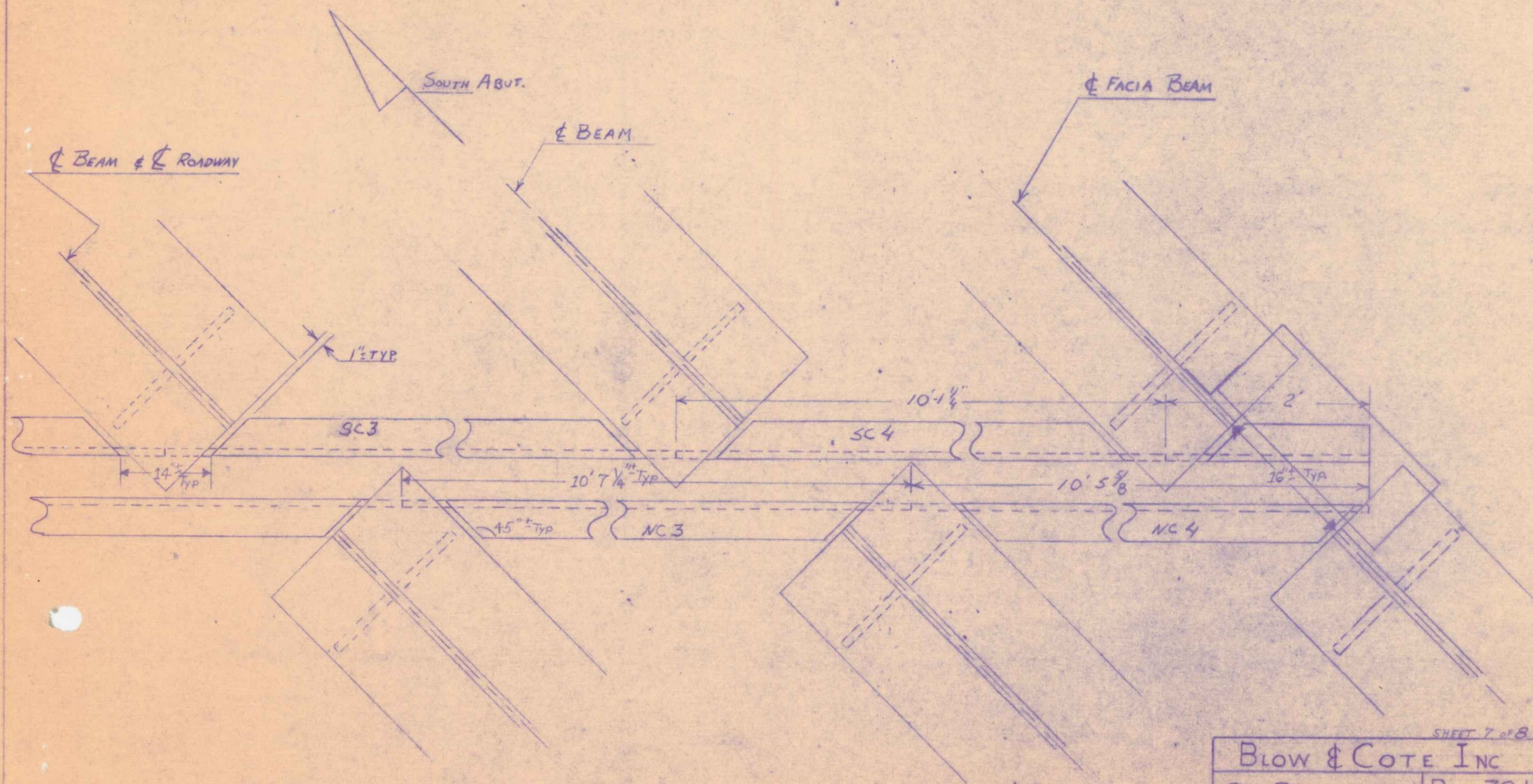


BRACKET FOR DOWN
PIPE @ ABUT. 4 REQ'D

RECEIVED APR 30 1975
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

SHEET 6 OF 8

BLOW & COTE, INC	
SO. BURLINGTON	BR 70N#5
TROUGH HANGER DETAILS	
I89 OVER WINDOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO I89-3(51)

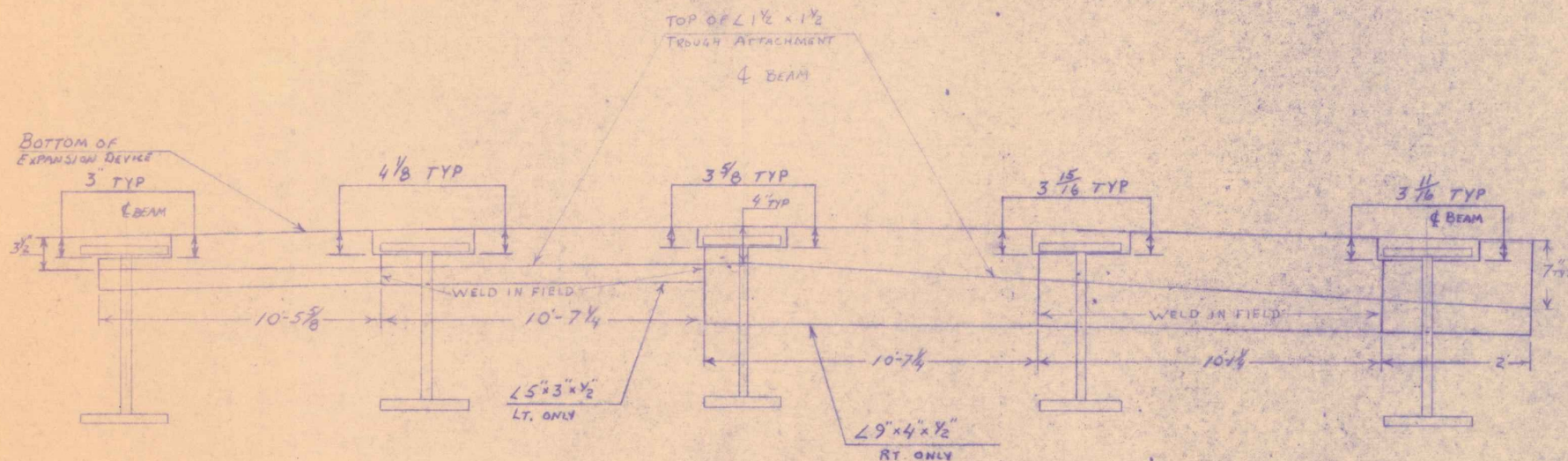


SHEET 7 OF 8

BLOW & COTE INC	
SO. BURLINGTON	BR. 70N#5
JOINT TROUGH DETAILS	
I89 OVER WINOOSKI RIVER	
PROJECT:	PROJECT NO
WALLISTON-COLCHESTER	I89-3(51)

APR 30 1975

RECEIVED
 CK'D BY _____ OK'D BY _____
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

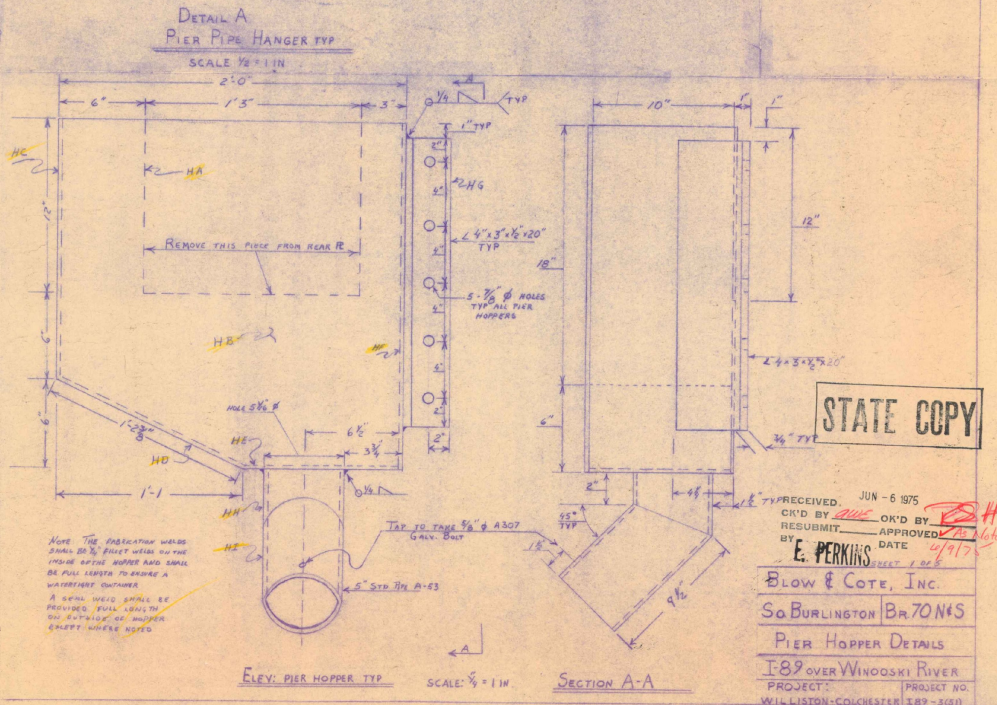
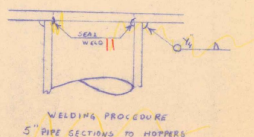
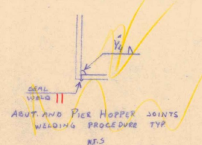
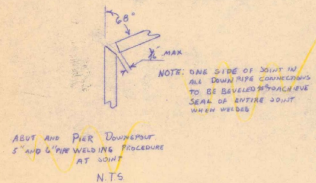
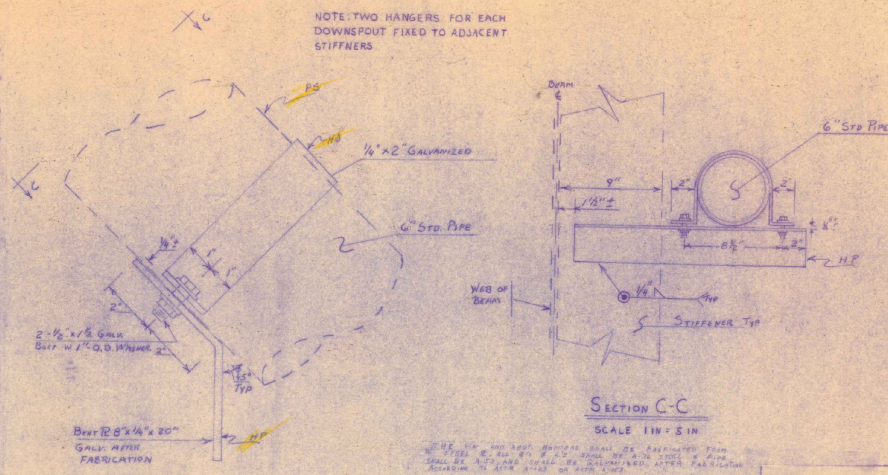
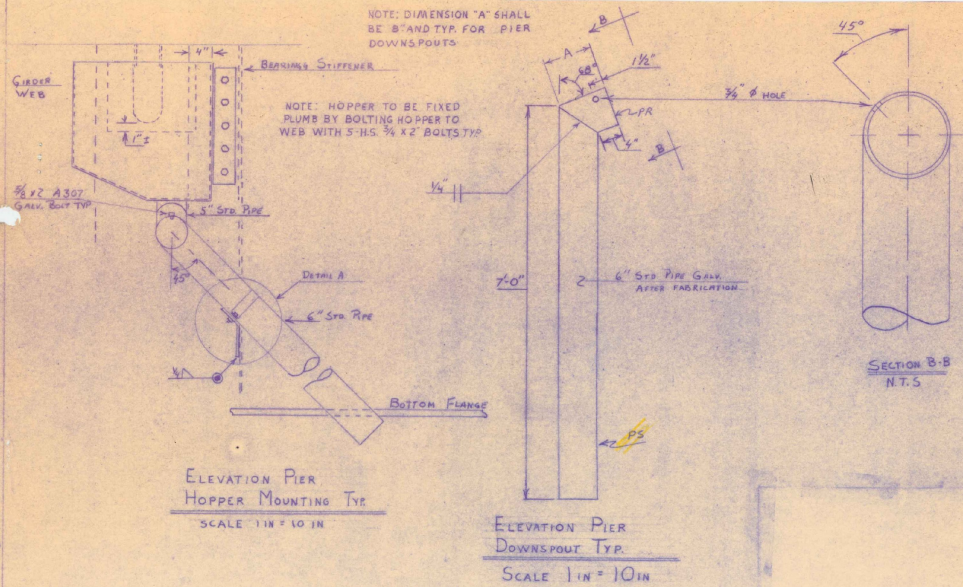


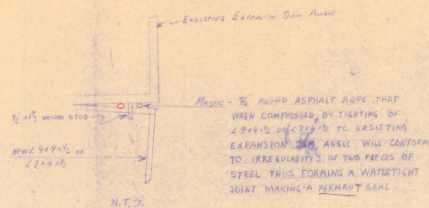
PROFILE ALONG TROUGH
N.T.S.

RECEIVED APR 30 1975
OK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

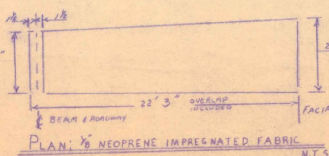
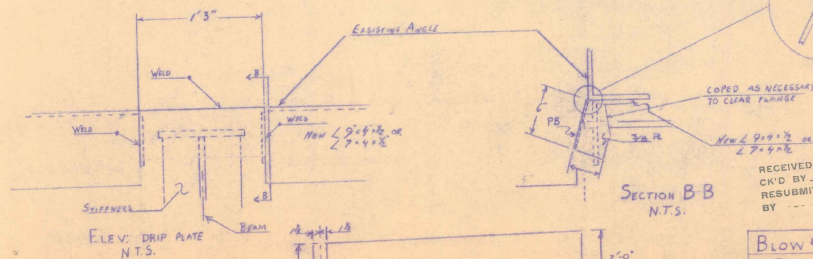
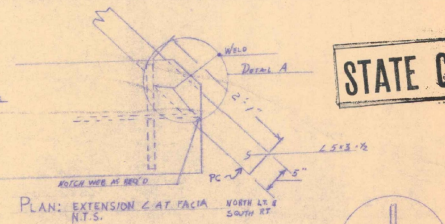
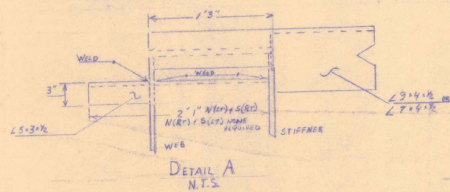
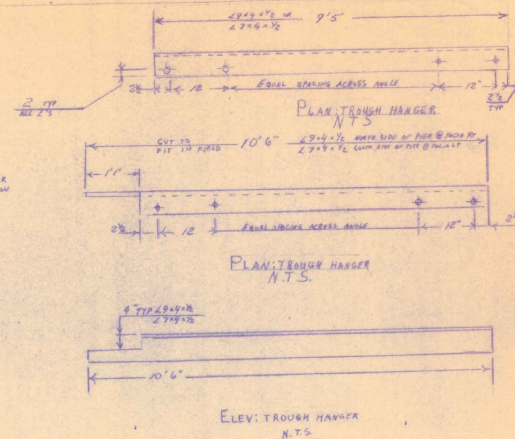
SHEET 8 OF 8

BLOW & COTE, INC	
SO. BURLINGTON	BR 70N&S
PIER TROUGH DETAILS	
I89 OVER WINOOSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. I89-3(51)





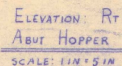
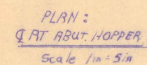
*Round Asphalt rope shall be placed both in front and in back of $\frac{1}{2} \times 1 \frac{1}{2}$ " welded studs for the entire length of the $\angle 9 \times 4 \times \frac{1}{2}$ or $\angle 7 \times 4 \times \frac{1}{2}$. Sufficient mastic shall be used to completely fill all voids. Any excess, after tightening of angles, shall be trimmed off.



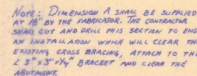
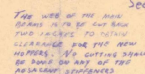
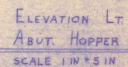
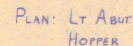
STATE COPY

RECEIVED JUN 13 1976
 OK'D BY ONE OK'D BY ONE
 RESUBMIT APPROVED
 BY DATE 6/15/76

BLOW & COTE, INC.
 50 BURLINGTON BR 70 N#5
 PIER TROUGH DETAILS
 I89 OVER WINODSKI RIVER
 PROJECT PROJECT NO.
 WILMINGTON-COCHESTER I89-3(CS)



NOTE: ALL FABRICATION WELDS SHALL BE $\frac{3}{4}$ INCH ON THE INSIDE OF ALL HOPPERS AND SHALL BE FULL LENGTH



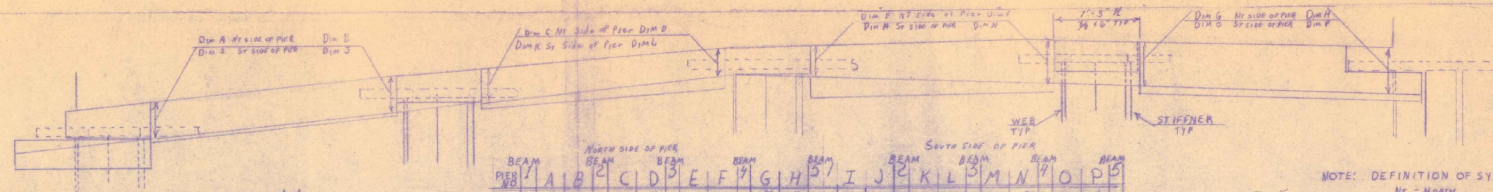
SECTION A-A
DOWNPIPE DETAILS @
NORTH ABUTMENTS
1" = 10'

STATE COPY

RECEIVED
CK'D BY MLF OK'D BY 281
RESUBMIT APPROVED ✓
BY E. PERKINS DATE 6/9/75

44427 3 of 5

BLOW # COTE, INC.	
So BURLINGTON	Br 70N #5
N ABUTMENT HOPPER DETAILS	
I-89 OVER WINDGSKI RIVER	
PROJECT: WILLISTON-COLCHESTER	PROJECT NO. 189-360



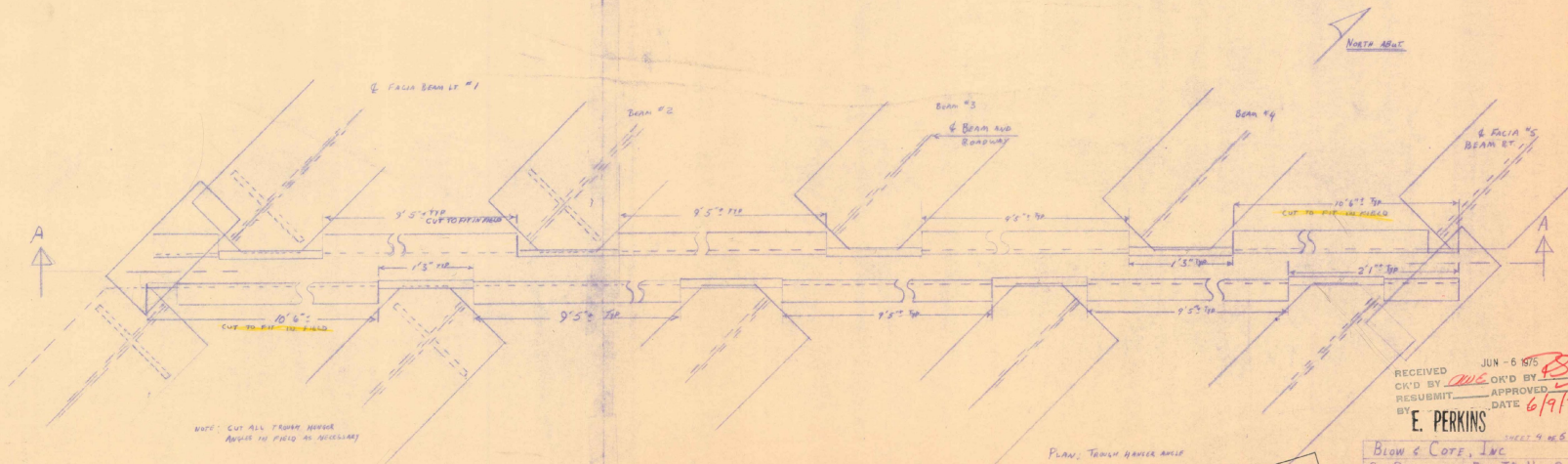
Section A.A.
N.T.S.

BEAM	NORTH SIDE OF PIER										SOUTH SIDE OF PIER									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SOUTHBOUND	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NORTHBOUND	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: DEFINITION OF SYMBOLS
 BE - BEAM
 DIM - DIMENSION

OK per memo from
 Construction 6/10/75
 RBK

THIS CHART SHOWS ACTUAL FIELD MEASUREMENT AS TO PLACEMENT OF TRUCKS
 THAT WILL PASTER FROM TROUGH TO HANGER ABOVE

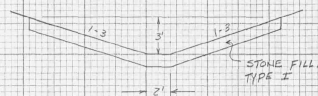


NOTE: CUT ALL TRUSS MEMBER
 ANGLES TO FIELD AS NECESSARY

PAIN SYSTEM
 BASIC LEAD SILICO-CHROMATE
 Vt. 100. BASIC LEAD SILICO-CHROMATE PRIMER TYPE I
 Vt. 200. BASIC LEAD SILICO-CHROMATE GRAY PAINT
 Vt. 300. BASIC LEAD SILICO-CHROMATE GREEN PAINT

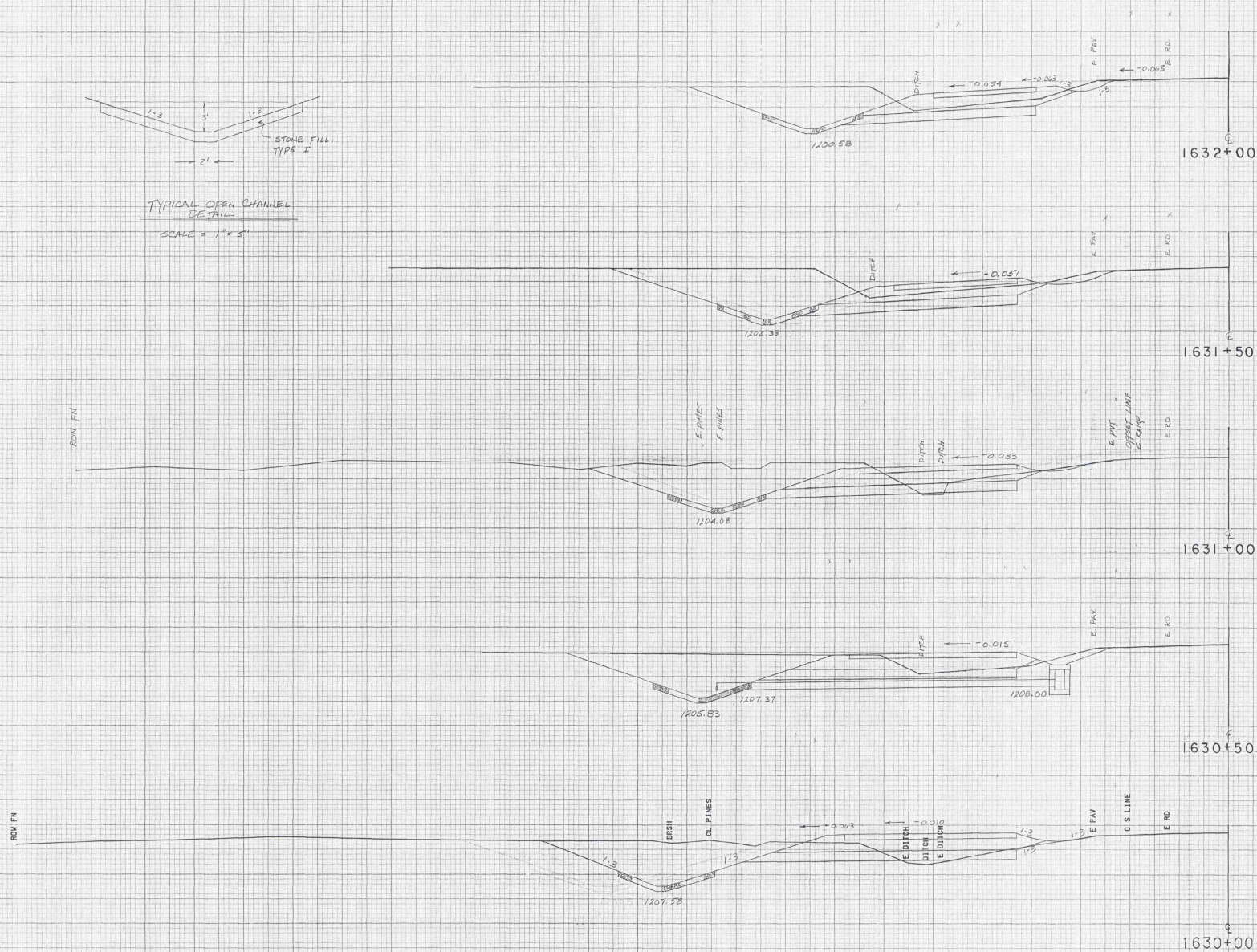
STATE COPY

RECEIVED JUN - 6 1975
 CHK'D BY [Signature] OK'D BY [Signature]
 RESUBMIT APPROVED
 E. PERKINS
 SHEET 4 OF 6
 BLOW & COTE, INC.
 50 BURLINGTON BR 70 N & S
 JOINT TROUGH DETAILS
 189 OVER WINDERS RIVER
 PROJECT: WINDERS BRIDGE
 CONTRACT: 1-89-2000



TYPICAL OPEN CHANNEL
DETAIL

SCALE = 1" = 5'



FROM STA.	1630+00	TO STA.	1630+00
PROJECT NAME	RANDOLPH H1		
PROJECT NO.	18089-1 (14)		
SURVEYED BY	R. MOREAU		
SHEET 38	OF	SHEETS	07/92 0367

SCALE 10 FEET

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01
HANGER 275



* INTERCHANGES

1975

Williston-Colchester

I-89-3 (51) (52)

1975