F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN/PORTLAND	BHF-22(132)	82-252	1993	66	1	22

CONNECTICUT DEPARTMENT OF TRANSPORTATION PLAN

FOR

PAINTING OF BRIDGE CARRYING ROUTE 66 OVER THE CONNECTICUT RIVER

IN THE TOWN(S) OF

MIDDLETOWN/PORTLAND

FROM STA. 100+94.0 TO STA. 135+14.0

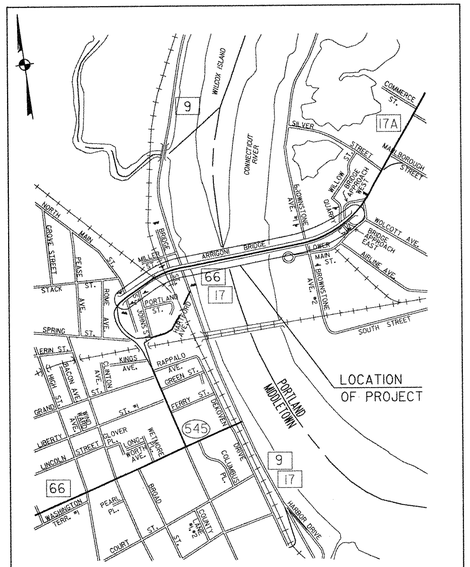
LENGTH 3420 FT.

DESIGN SCALES { PLAN 1 IN = ____ FT.
PROFILE HOR. 1 IN. = ____ FT. VERT. 1 IN.= ____ FT.
CROSS SECTIONS 1 IN.= ____ FT.

OTHER SCALES AS NOTED

TO BE MAINTAINED BY THE STATE

FEDERAL AID PROJECT NO. BHF-22(132)



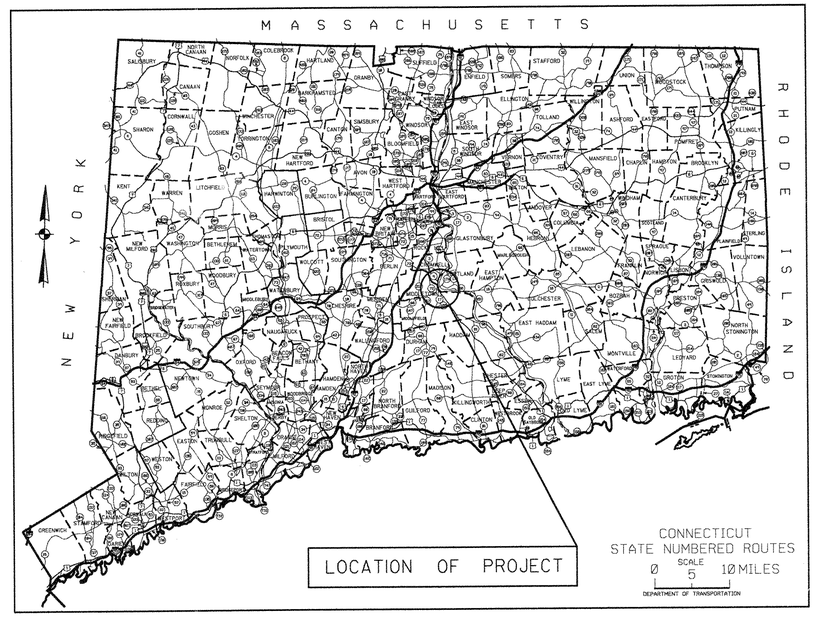
◊ APPROXIMATE LOCATION OF SERIES 16-M CONSTRUCTION SIGNS

◊◊ APPROXIMATE LOCATION OF SERIES 16-H CONSTRUCTION SIGNS

LOCATION PLAN

SCALE IN FEET

1000' 0 1000' 2000'



1988 SPECIFICATIONS, FORM 814 INCLUDING SUPPLEMENT THERE TO DATED JULY, 1993 GOVERN.
ALL ELEVATIONS ON THIS PROJECT BASED ON N.G.V.D. OF 1929

TOWN NO. 82

PROJECT NO. 252

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET NO.	STANDARD DRAWINGS	F.H.W.A. APPROVAL DATE
1	TITLE SHEET			
2	DETAILED ESTIMATE SHEET			
3 - 18	STRUCTURE SHEETS			
19 - 22	TRAFFIC SHEETS			

STANDARD CONVENTIONS

North Arrow W/No.Coor. — Grid Arrow

Edge Of Road
Concrete Pavement
Dirt Road
B.C.I.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit.Walk
Conc.Sidewalk
Railroad Tracks
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Water Edge
Stream
Ditch
TOWN LINE

Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall
Highway Line
Street Line
Property Line
Lot Line
Easement Line

82-252

621-07

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR — DATE

CONNECTICUT DOT — COMPUTER AIDED DESIGN — OFFICE OF ENGINEERING

QSA3:[40,2]P082X252.TSH

APPROVAL IS HEREBY CONSTRUED TO MEAN THAT THIS DESIGN WAS PREPARED BY PERSONS BELIEVED TO BE COMPETENT IN DESIGN AND THAT THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA.
APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

SUBMITTED August 26, 1993
ENGINEER OF DESIGN - THOMAS A. HARLEY

APPROVAL RECOMMENDED Aug 26 1993
DIVISION MANAGER OF STATE DESIGN - BRADLEY J. SMITH

APPROVED Aug 26 1993
DIRECTOR OF ENGINEERING - EARLE R. MUNROE

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.

DETAILED ESTIMATE SHEET

F.HW.A. REGION NO.	STATE	TOWN	FED.AID PROJ.NO.	PROJ.NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN & PORTLAND	BHF-22(131)	82-252	1993	66	2	22

CONNECTICUT D.O.T. COMPUTER AIDED DESIGN OFFICE OF ENGINEERING

P - FEDERAL AID PARTICIPATING
NP - FEDERAL AID NON PARTICIPATING
*- FOR INTERNAL USE ONLY NOT A LEGAL DEFINITION

FOR THE CONSTRUCTION OF PAINTING OF THE ARRIGONI BRIDGE IN THE TOWNS OF MIDDLETOWN & PORTLAND

FROM STA. 100+94.0 TO STA. 135+14.0 LENGTH 3420 FEET; BASE COURSE N/A WIDTH ____ FEET; DEPTH ____ INCHES; SURFACE COURSE N/A WIDTH ____ FEET; DEPTH ____ INCHES;

ITEM NUMBER	ITEM	UNIT	PROJ. NO. 82-252	TOTAL
504000	RAILROAD PROTECTION	HR.	120	120
100426A	WATER TRANSPORTATION FOR RESCUE OPERATIONS	DAY	200	200
603027A	DISPOSAL OF DEBRIS (CONTAMINATED)	C.Y.	156	156
603153A	DISPOSAL OF DEBRIS (HAZARDOUS)	C.Y.	156	156
603546A	FIELD DRILLED HOLES	EA.	656	656
603551A	MODIFY EXISTING STRUCTURAL STEEL-SITE NO. 1	L.S.	L.S.	L.S.
603923A	ABRASIVE BLAST CLEANING AND FIELD PAINTING OF STRUCTURE (SITE NO. 1)	L.S.	L.S.	L.S.
603563A	CLASS I CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS (SITE NO. 1)	L.S.	L.S.	L.S.
601935A	EPOXY INJECTION-SLAB TO GIRDER	L.F.	850	850
601936A	EPOXY INJECTION-SLAB TO STRINGER	L.F.	331	331
913600A	NETTING	S.F.	3900	3900
969003A	CONSTRUCTION FIELD OFFICE (TYPE A) (TYPE C)	MO.	21	21
970001	TRAFFICMEN	HR.	180	180
970003	TRAFICMEN (TOWN (CITY) POLICE OFFICERS)	HR.	1400	1400
971001A	MAINTENANCE AND PROTECTION OF TRAFFIC	L.S.	L.S.	L.S.
975002	MOBILIZATION	L.S.	L.S.	L.S.
981100	42" TRAFFIC CONE	EA.	30	30
1220001	CONSTRUCTION SIGNS ENCAPSULATED LENS REFLECTIVE SHEETING	S.F.	510	510

ITEM NUMBER

ITEM

UNIT

SUBTOTAL

TOTAL

	BY	DATE
PREPARED	M.A.L.	7-93
CHECKED	N.R.G.	7-93

QSA3:[40,5]P082X252.DET

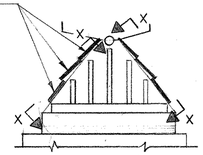
82-252

621-07

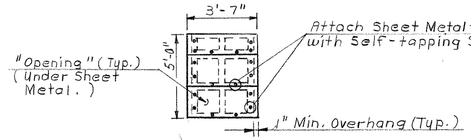
STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION — FORM NO ENG 15A ED. 1-88

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	Middletown - Portland	BHF-22(131)	82-252	1993	66	3	22

Install Galv. Steel Sheet Metal Over "Openings" in the Bearing Shoe in a Shingled Manner (3" Min. Lap.) A Total of Eight Shoes will be Modified.

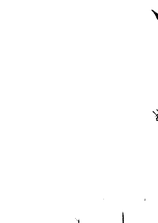


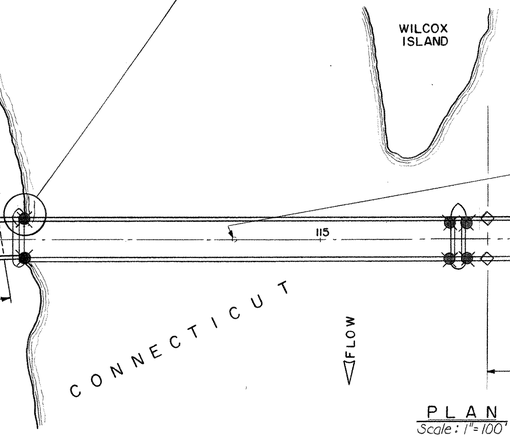
MODIFY EXISTING STRUCTURAL STEEL - SITE NO. 1
SCALE 1/4" = 1'-0"

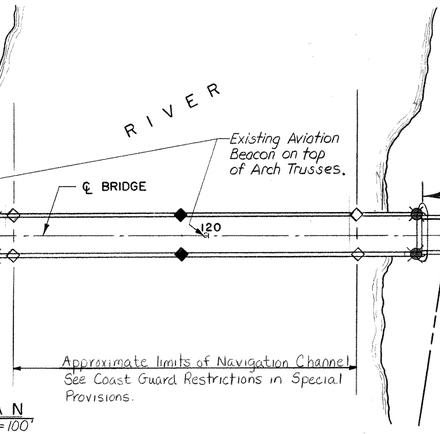


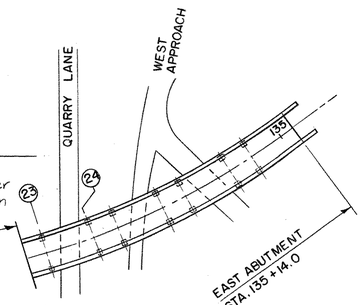
VIEW X-X
SCALE 1/4" = 1'-0"

Channel Encroachment Line
Based on 1962 Map entitled "Flood Channel Lines," Connecticut River, Middletown, Ct., Sht. 6 of 6.





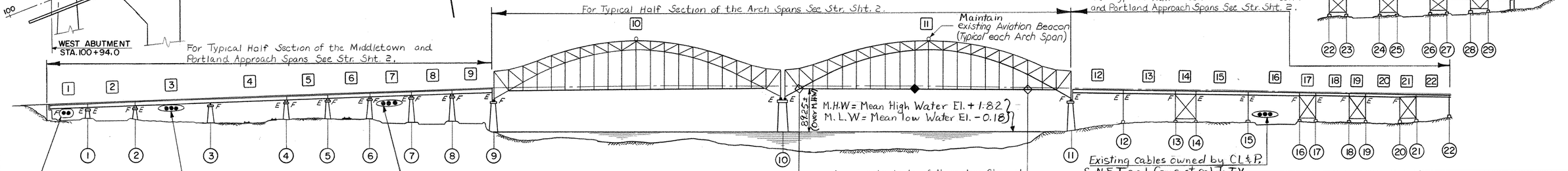




PLAN
Scale: 1"=100'

For Typical Half Section of the Middletown and Portland Approach Spans See Str. Sht. 2.

For Typical Half Section of the Arch Spans See Str. Sht. 2.



ELEVATION (Bridge No. 00524)
Scale: 1"=100'

KEY (CONTINUED)

Denotes Bearing Shoe to be modified after painting. See "Modify Existing Structural Steel - Site No. 1", this sheet.

KEY

- ◇ Denotes Channel Margins (180° Red)
- ◆ Denotes Channel Center (360° Green)
- [5] INDICATES SPAN NUMBERS
- (10) INDICATES PIER NUMBERS
- F INDICATES FIXED BEARING
- E INDICATES EXPANSION BEARING

Existing Lighting. For Navigation lighting during construction see Special Provisions.

*- The CL&P cables under spans 1, 3, and 7 are to be relocated underground by CL&P.

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NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

GENERAL PLAN

ENGINEER BRIDGE DESIGN UNIT
DESIGNER M A L | DRAFTER J J C | CHECKER R D D
APPROVED [signature] | DATE 7/28/93
STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 1 OF 16

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN	BHF-22(131)	82-252	1993	66	4	22

SUMMARY OF WORK

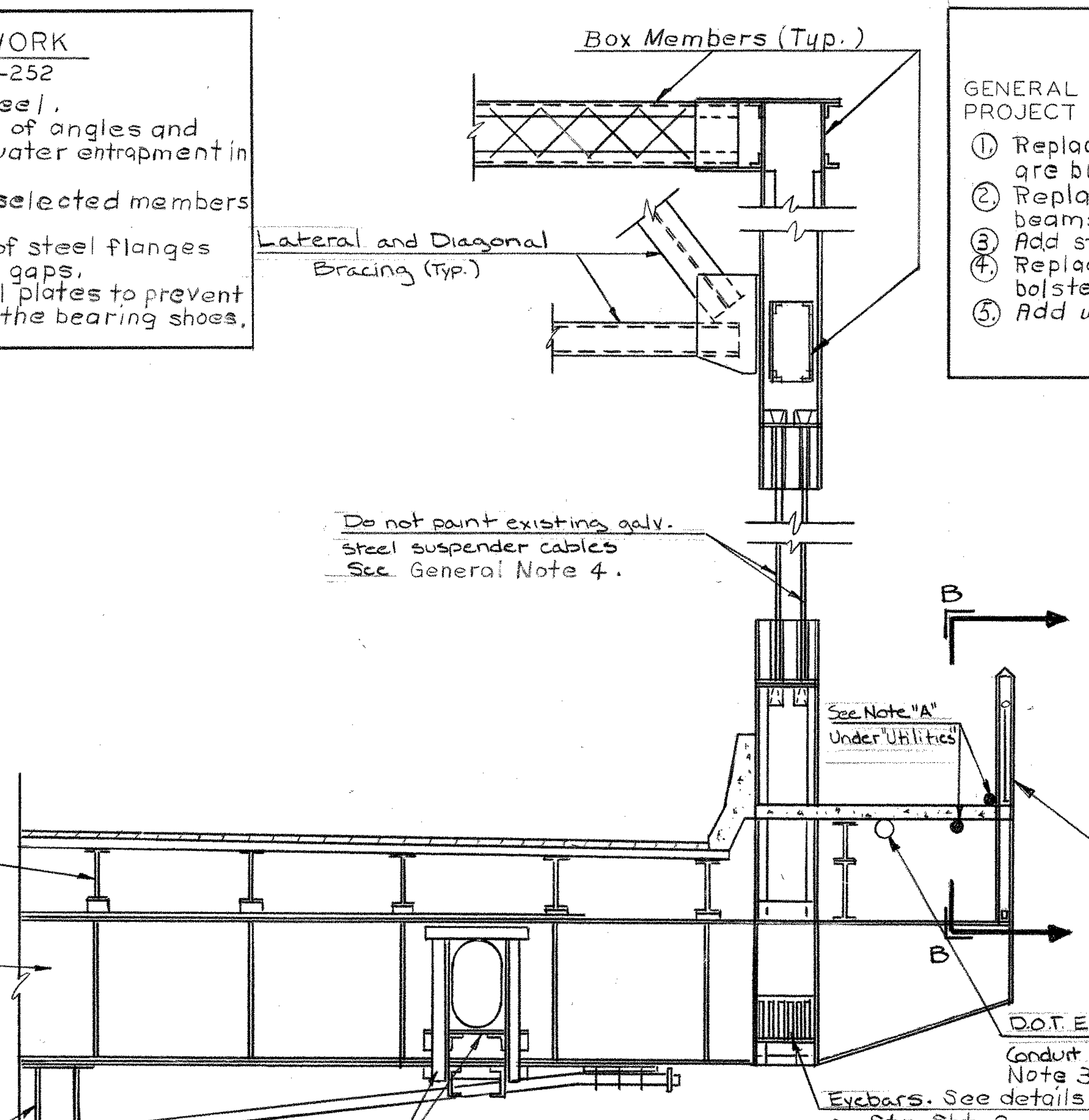
PROJECT NO. 82-252

1. Clean and paint structural steel.
2. Field drill holes in low points of angles and gusset plates to eliminate water entrapment in these members.
3. Install netting to bird proof selected members of the arch spans.
4. Inject epoxy between the tops of steel flanges and the concrete slab to fill in gaps.
5. Modify bearing shoes with steel plates to prevent accumulation of debris inside the bearing shoes.

NOTE "A"

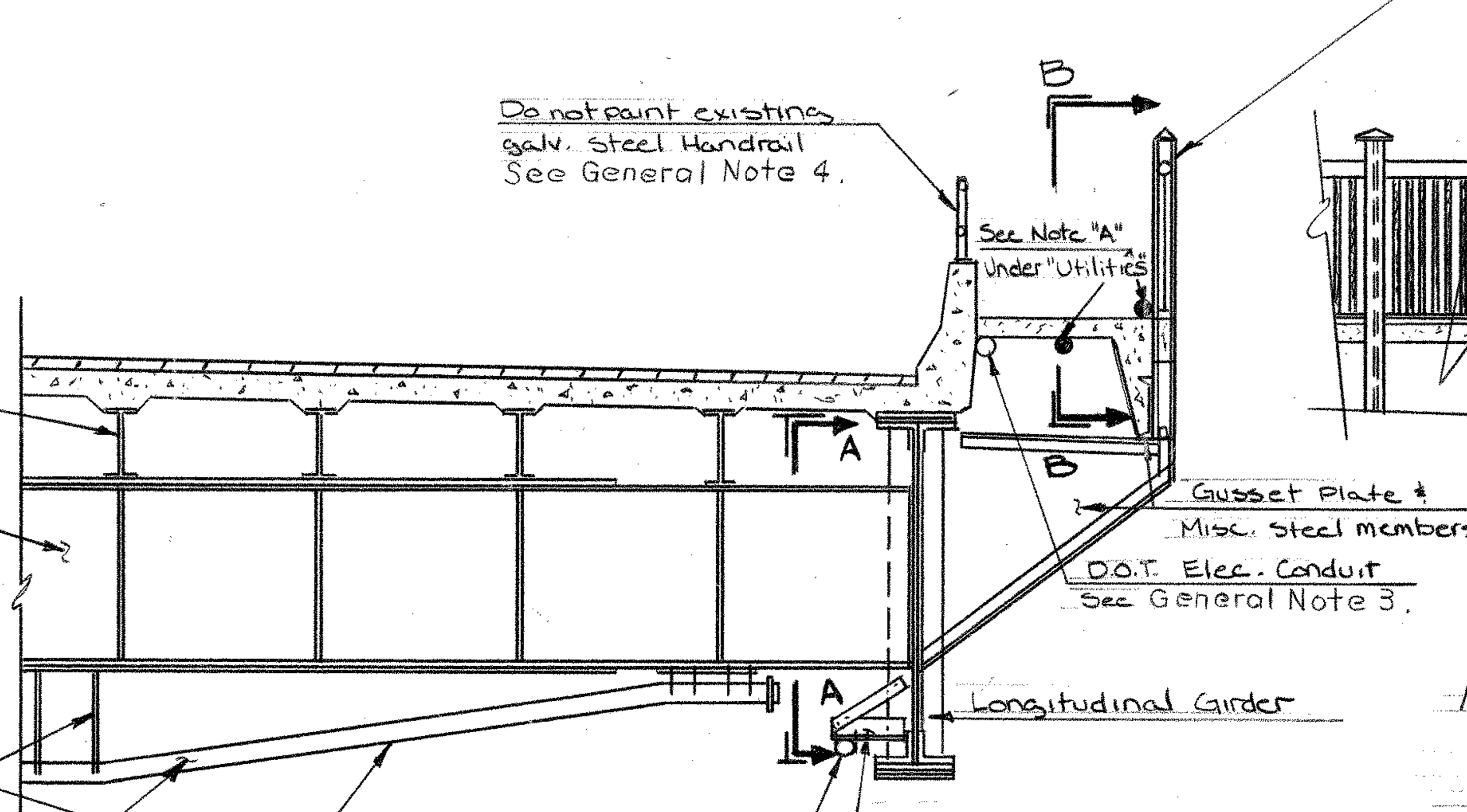
GENERAL DESCRIPTION OF STEEL WORK INCLUDED IN CONSTR. ORDER FOR PROJECT 82-223 (PLANS DATED JUNE 30,1993).

1. Replace diagonals and struts of piers 13, 14, 16-29. Existing members are builtup. Replacement members are I-Sections.
2. Replace rocker bearings with elastomeric bearings at lateral floor beams over Piers 1, 2, 4 thru 8, Also install brackets.
3. Add steel keeper blocks at piers 9 Thru 11.
4. Replace existing bearings with elastomeric bearings, cap plates, & bolsters at Piers 13, 14, & 16.
5. Add welded bracket plates at miscellaneous floor beams.



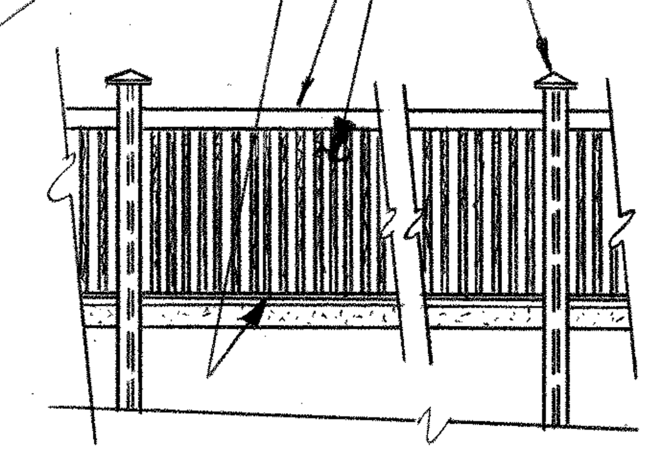
TYPICAL HALF SECTION THRU ARCH SPANS

Scale: 1/4" = 1'-0"



TYPICAL HALF SECTION THRU APPROACH SPANS

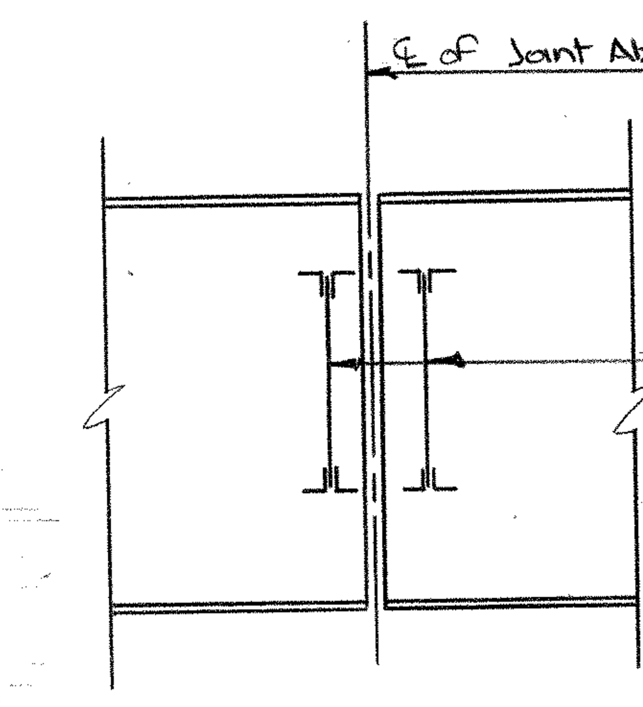
Scale: 1/4" = 1'-0"



SECTION B-B

Notes: 1. Fencing not shown. See Str. Sht. 1 for approximate location.

2. Other structural steel on the Portland Approach. (Consisting of columns, bracing, etc.) is not shown in this Typical Half Section, but it will also be painted under this contract.



SECTION A-A

(Taken at Typical Pier)

Scale: 1/4" = 1'-0"

Note: Drainage piping not shown in Section A-A.

QUANTITIES - BR. NO. 00524

ITEM	UNIT	AMOUNT
Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)	L.S.	L.S.
Class 1 Containment and Collection of Surface Preparation Debris (Site No. 1)	L.S.	L.S.
Disposal of Debris (Hazardous)	C.Y.	156
Disposal of Debris (Contaminated))	C.Y.	156
Epoxy Injection - Slab to Girder	L.F.	850
Epoxy Injection - Slab to Stringer	L.F.	331
Netting	S.F.	3900
Field Drilled Holes	Ea.	656
Modify Existing Structural Steel - Site No. 1	L.S.	L.S.

NOTICE TO BRIDGE INSPECTORS

The Department's Bridge Safety procedures require this bridge to be inspected for, but not limited to, all appropriate components indicated in the governing manuals for bridge inspection. Attention must be given to inspecting the following special components and details. (The lisiting of components for specific attention shall not be construed to reduce the importance of inspection of any other component of the structure). The frequency of inspection of this structure shall be in accordance with the governing manuals for bridge inspection, unless otherwise directed by the Manager of Bridge Safety and Evaluation.

COMPONENT OR DETAIL	BRIDGE SHEET REFERENCE
Follow normal inspection procedures.	———

INDEX TO STRUCTURE SHEETS

COLOR OF FIELD PAINTING

△1

Site No.	Bridge No.	Color of Bridge		Color of Railings & Fence	
		Federal Standard No.	Color	Federal Standard No.	Color
1	00524	~~24172~~ 25526	~~Green~~ Light Blue	~~24172~~ 25526	~~Green~~ Light Blue

INSPECTION OF FIELD WELDS

METHOD	UNIT	AMOUNT
Ultrasonic	in.	Ø
Magnetic Particle	L.F.	Ø

GENERAL NOTES

SPECIFICATIONS: Connecticut Department of Transportation Form 814 (1988), Supplemental Specifications and Special Provisions.

PAINT:

Structural Steel: Except as noted in Notes 1-4 below, all steel of Bridge No. 00524 (Site No. 1) shall be abrasive blast cleaned and field painted in accordance with the special provision 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'. Structural steel, including but not limited to floor stringers, girders, floor beams, lateral and diagonal bracing, gusset plates, stiffeners, box members, lacing, eyebars, bearings, keeper devices, steel pier caps, bents and columns, steel light standards, railings, and all components of the inspection access ladders on the arch spans, shall be abrasive blast cleaned and painted.

Zinc Primed Steel Installed under Project No. 82-223: This steel shall also be abrasive blast cleaned and field painted in accordance with the special provision 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'.

Ongoing Steel Installations (being done under Project No. 82-223 by Construction Change Order): This steel is being installed with a zinc primer coat on it. This steel shall also be abrasive blast cleaned and field painted in accordance with the special provision 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'. The Contractor is hereby advised that the plans for this construction change order (dated June 30, 1993) are available. See Note "A", this sheet.

All coating debris removed in the abrasive blast cleaning operations shall be contained and collected in accordance with the special provision 'Class 1 Containment and Collection of Surface Preparation Debris (Site No. 1)'.

The collected coating debris shall be sampled, tested and disposed of in accordance with the special provisions 'Disposal of Debris (Hazardous)' and 'Disposal of Debris (Contaminated)'.

EXCEPTIONS TO ABRASIVE BLAST CLEANING OR 3-COAT PAINTING

1. Galvanized Steel Post Tensioning Conduits: Shall receive intermediate and topcoats only after cleaning. See special provision 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'.

2. Structural Steel in Contact with Drainage Supports: Shall receive primer and intermediate coats only. See details on str. shts. 13-16.

3. Fencing Mesh and D.O.T. Electrical Conduits: These shall receive intermediate and top coats only after cleaning. See special provision 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'.

4. Galvanized Steel suspenders, galv. steel handrail, the galv. steel catwalk, & the fiberglass pipe shall not be painted, but shall be protected from adjacent areas being cleaned and painted.

UTILITIES:

A: Bridge No. 00524 carries the following utilities:

Utility	Owner
Cable TV	Comcast Cablevision of Middletown

Utilities shall not be painted, however, the structural steel utility supports, which are an integral part of the structure shall be cleaned and painted.

B: For utilities which pass under Br. No. 00524 see Str. Sht. 1

PERMITS: The Contractor will be required to obtain the necessary permits if he proposes to work within the Stream Channel Encroachment Lines or regulated flood plain areas. See Special Provision 'Notice to Contractor - Permits'.

Work to be completed within the navigation channel is subject to U.S. Coast Guard stipulations. See Special Provision 'Coast Guard Notification and Requirements'.

GENERAL NOTES (CONTINUED)

TRAFFIC: All work shall be done in accordance with the special provisions " Maintenance and Protection of Traffic " and " Prosecution and Progress ".

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NO.	DATE	DESCRIPTION
△	4/94	Revised paint colors in "Color of Field Painting"

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

GENERAL NOTES, QUANTITIES & TYPICAL CROSS SECTIONS

ENGINEER BRIDGE DESIGN UNIT
DESIGNER RDD | DRAFTER WSP | CHECKER WJD
APPROVED [illegible] | DATE 7/28/93
STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 2 of 16

[50,7]B82X252C.DGN Jul. 24, 1993 09:19:12

82-252

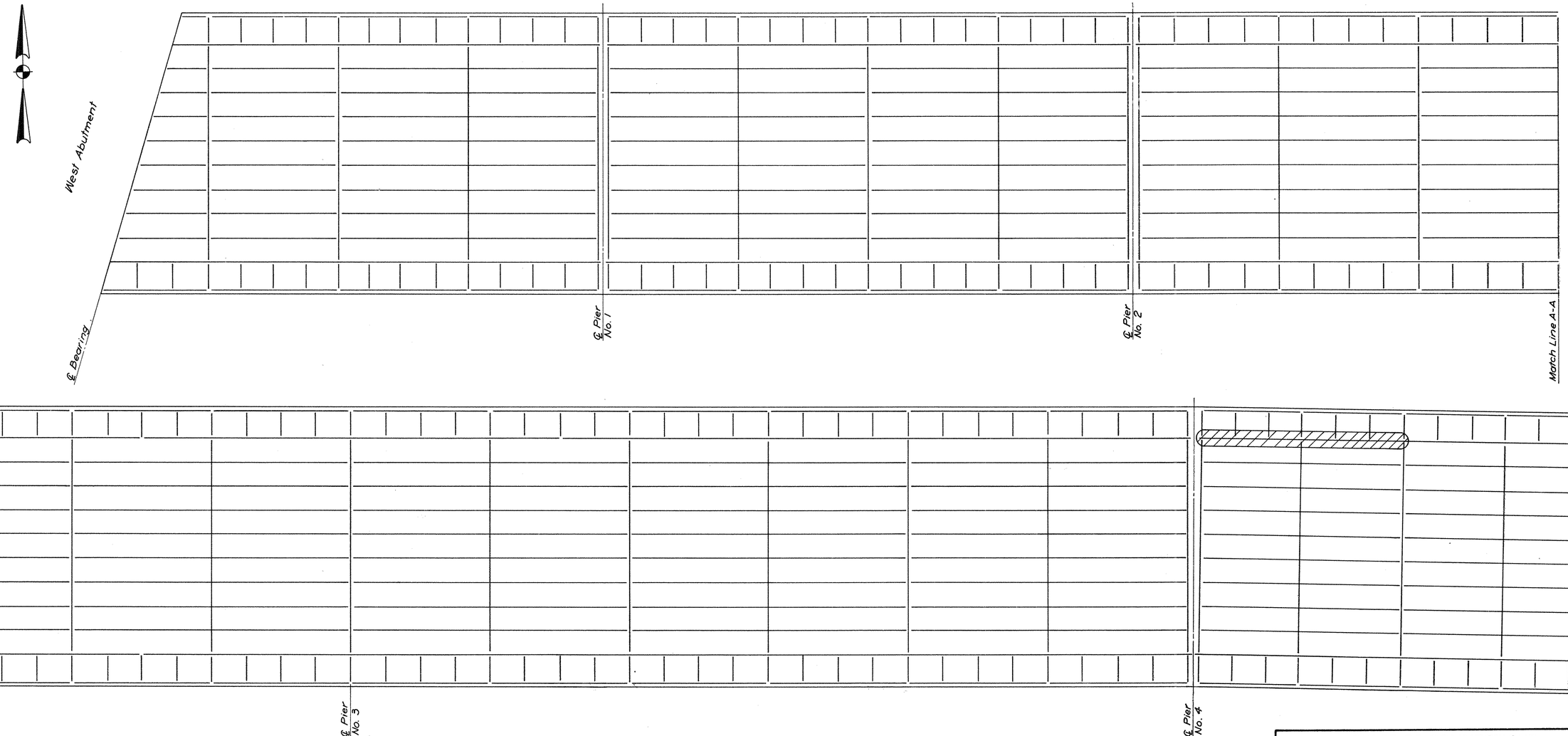
621-07

4

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

FORM NO. ENG. 15A ED. 4-80

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN – PORTLAND	BHF-22(131)	82-252	1993	66	5	22



LEGEND

Gap to be filled between deck and Girder or Stringer.

FRAMING PLAN

SCALE: 3/32"=1'-0"

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN – PORTLAND

PAINTING OF

ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

HAUNCH REPAIRS

ENGINEER HOWARD NEEDLES TAMMEN & BERGENDOFF

DESIGNER K.G.D. | DRAFTER C.B. | CHECKER B.A.M.

APPROVED [signature] DATE 7/19/93

STRUCTURE NO. | BRIDGE LOG NO. 00524 | STRUCTURE SHEET NO. 3 OF 16

JOSEPH MERRITT & CO. 131628

82-252

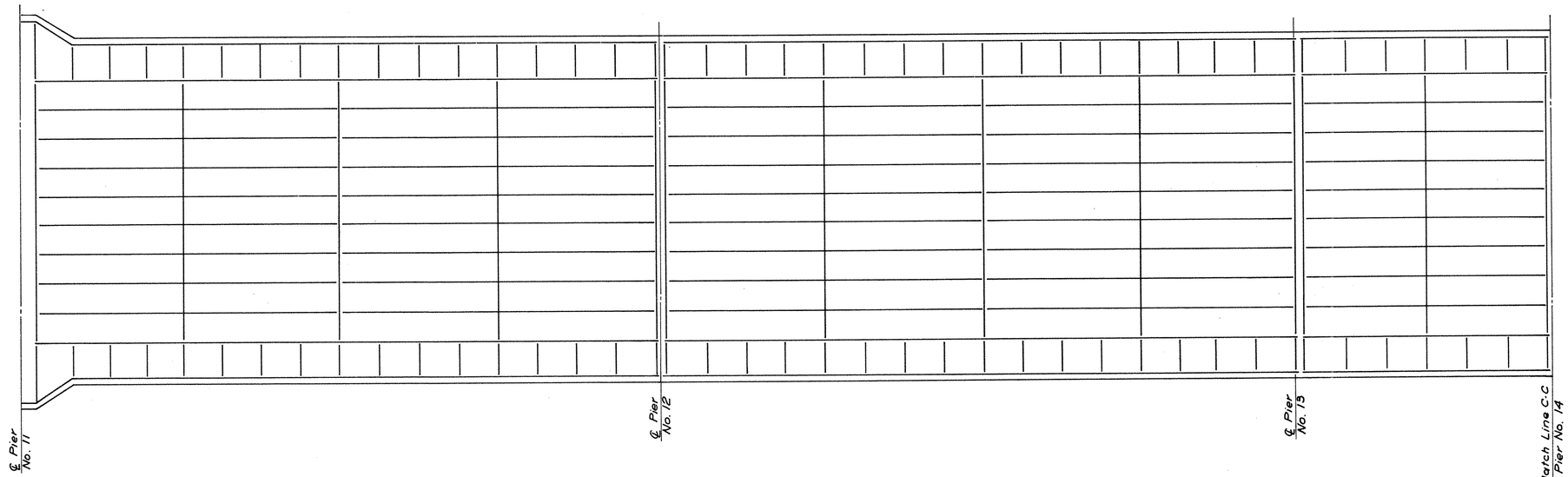
621-07

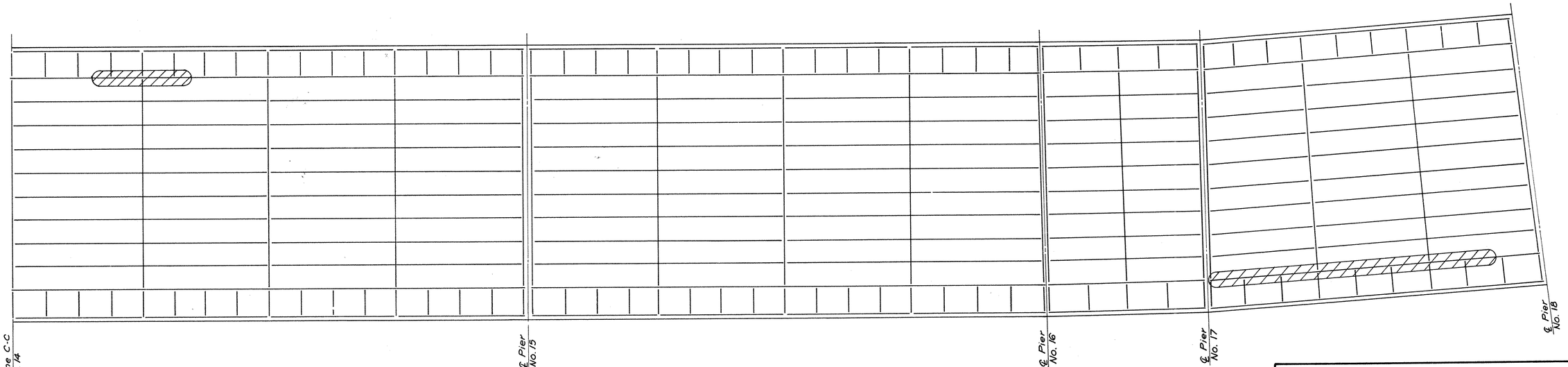
5

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

FORM NO ENG 15A ED 4-84

F H W A REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN – PORTLAND	BHF-22(131)	82-252	1993	66	6	22





FRAMING PLAN

SCALE: 3/32"=1'-0"

LEGEND

Gap to be filled between deck and Girder or Stringer

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN–PORTLAND

PAINTING OF

ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

HAUNCH REPAIRS

ENGINEER HOWARD NEEDLES TAMMEN & BERGENDOFF

DESIGNER K.G.D. | DRAFTER C.B. | CHECKER B.A.M.

APPROVED _____ DATE 7/19/93

STRUCTURE NO. | BRIDGE LOC NO. 00524 | STRUCT. & SHEET NO. 4 OF 16

FRAMING PLAN

SCALE: 3/32" = 1'-0"

LEGEND

▨ Gap to be filled between deck and Girder or Stringer.

NO.	DATE	DESCRIPTION
REVISIONS		

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN-PORTLAND

PAINTING OF

ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

HAUNCH REPAIRS

ENGINEER HOWARD NEEDLES TAMMEN & BERGENDOFF

DESIGNER K. G. D. | DRAFTER C. B. | CHECKER B.A.M.

APPROVED [illegible] DATE 7/19/93

STRUCTURE NO. | BRIDGE LOG NO. 00524 | STRUCTURE SHEET NO. 5 of 16

131628 JOSEPH MERRITT & CO.

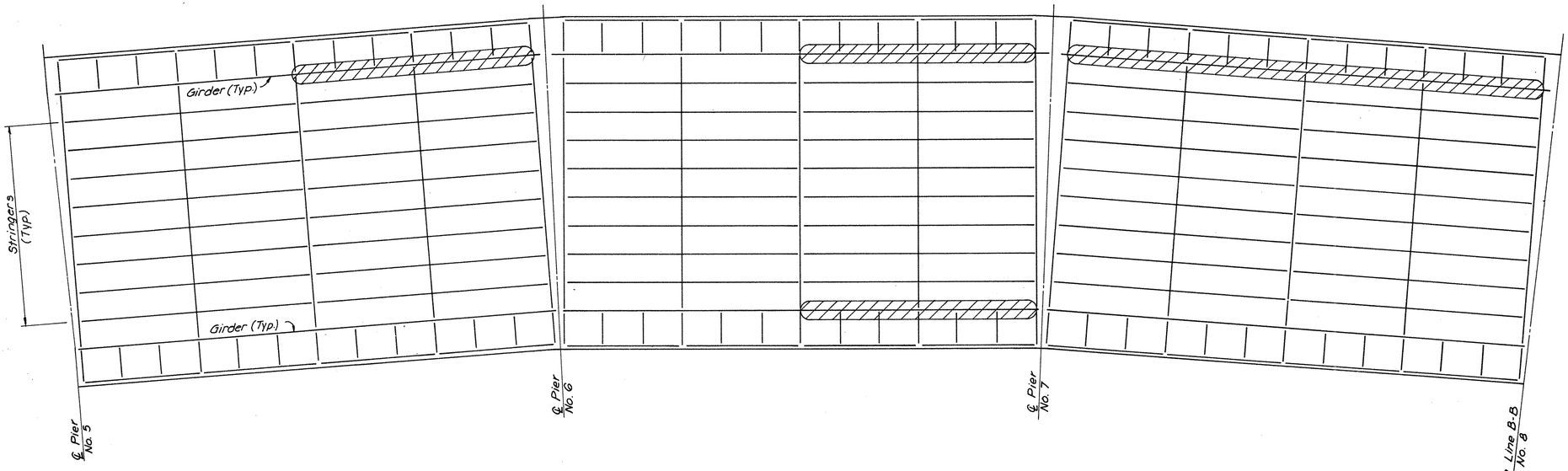
82-252

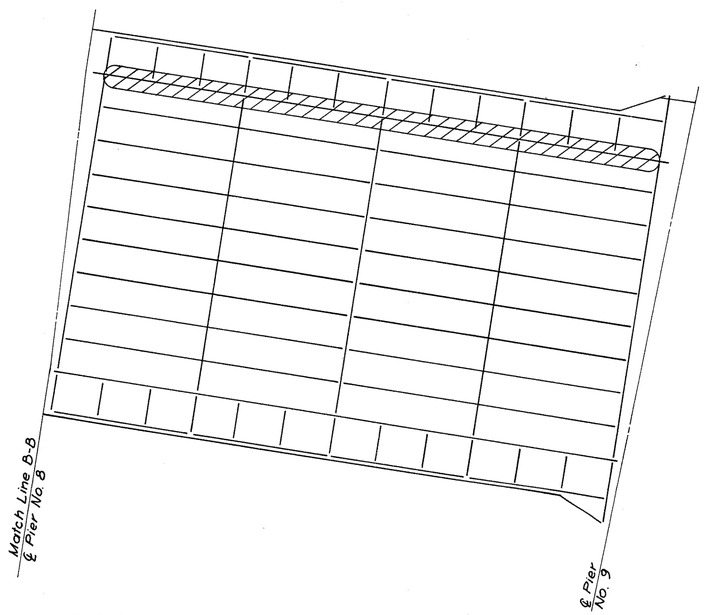
?

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

FORM NO ENG 15A ED 4-80

F H W A REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN - PORTLAND	BHF-22(131)	82-252	1993	66	8	22



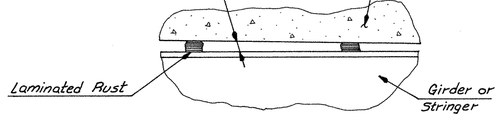


LEGEND

▨ Gap to be filled between deck and Girder or Stringer.

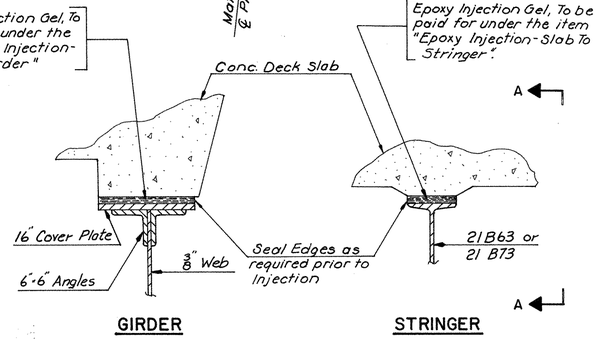
FRAMING PLAN

SCALE: 3/32" = 1'-0"



VIEW A-A

N.T.S.



SECTION THRU BEAMS

SCALE: 1" = 1'-0"

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN-PORTLAND

PAINTING OF

ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

HAUNCH REPAIRS

ENGINEER HOWARD NEEDLES TAMMEN & BERGENDOFF

DESIGNER K.G.D. | DRAFTER C.B. | CHECKER B.A.M.

APPROVED Joseph F. Markgraf DATE 7/13/93

STRUCTURE NO. | BRIDGE LOG NO. 00524 | STRUCTURE SHEET NO. 6 OF 16

131828 JOSEPH MERRITT & CO.

82-252

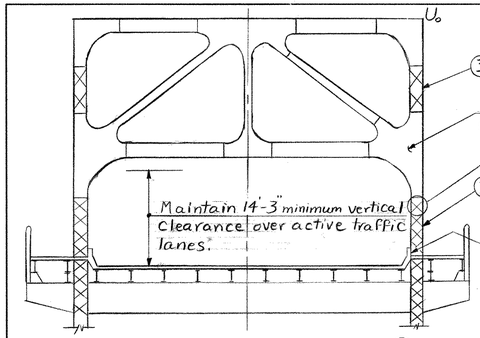
621-07

8

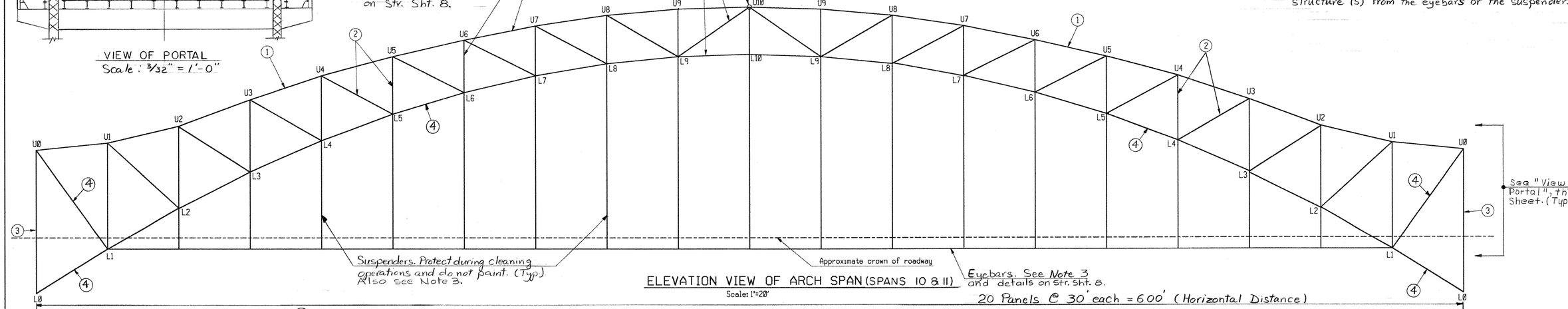
F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN	BHF-22(131)	82-252	1993	66	9	22

NOTES

1. This sheet is provided for the Contractor's reference and information only, and is in no way intended to show all the structural steel of the arch spans.
2. All structural steel of the Arch Spans (except as noted) shall be painted. See Special Provisions.
3. The Contractor shall not hang his containment structure (s) from the eyebars or the suspenders.

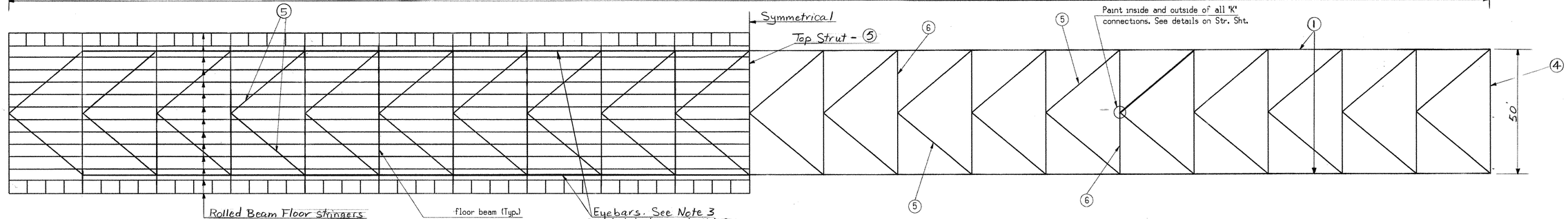


VIEW OF PORTAL
Scale: 3/32" = 1'-0"



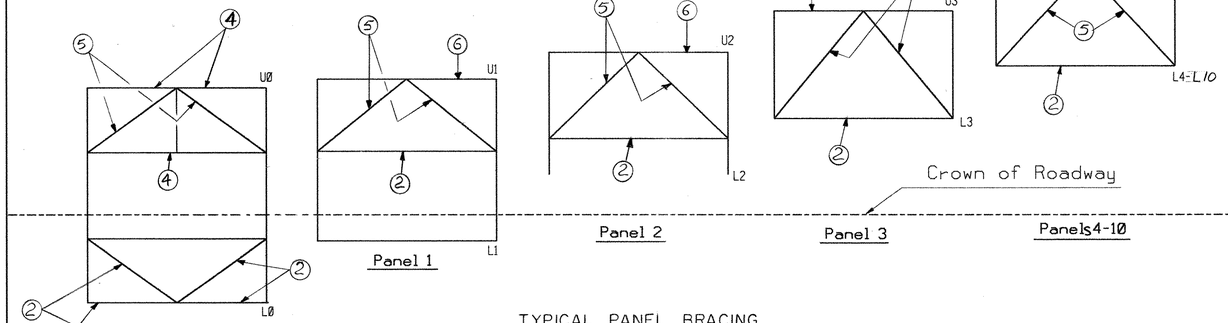
ELEVATION VIEW OF ARCH SPAN (SPANS 10 & 11)
Scale: 1"=20'

20 Panels @ 30' each = 600' (Horizontal Distance)

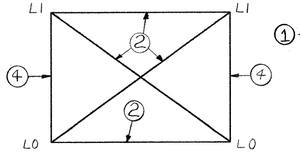


HALF PLAN OF FLOOR SYSTEM
Scale: 1" = 20'

HALF PLAN OF LATERALS IN PLANE OF TOP CHORD OF ARCH
Scale: 1" = 20'



TYPICAL PANEL BRACING
Scale: 1" = 20'



Bracing in End Panel in the plane of Bottom Chord of Arch

KEY

①-⑥ Denotes typical member types, See Str. Sht. 8 for Cross Sections of these member types.

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

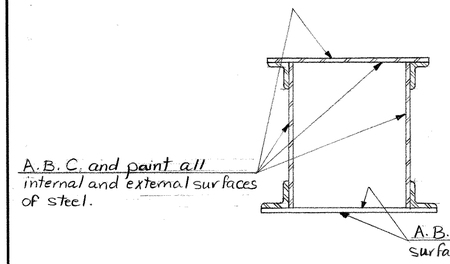
SCHEMATIC STEEL FRAMING OF TYP. ARCH SPAN

ENGINEER	BRIDGE DESIGN UNIT		
DESIGNER	RDD	DRAFTER ASH	CHECKER WJD
APPROVED		DATE	7/26/93
STRUCTURE NO.		BRIDGE LOC NO.	STRUCTURE SHEET NO. 7 of 16

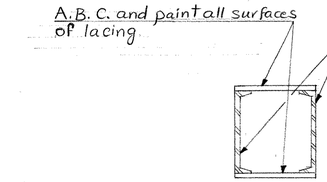
[50.7]B82X252A.DGN
Jul. 21, 1993
13:27:09

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION — FORM NO ENG 15A ED. 1-88

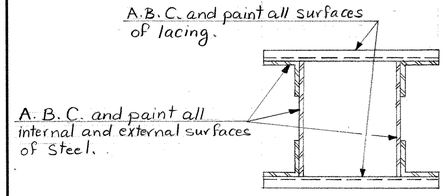
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN	BHF-22(131)	82-252	1993	66	10	22



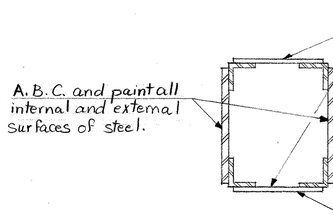
SECTION THRU TYPE ① MEMBER
SCALE 3/4" = 1'-0"



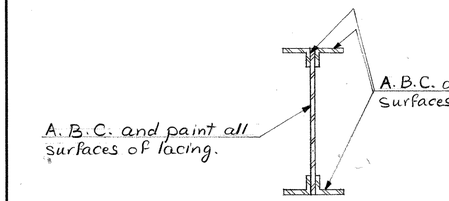
SECTION THRU TYPE ② MEMBER
SCALE 3/4" = 1'-0"



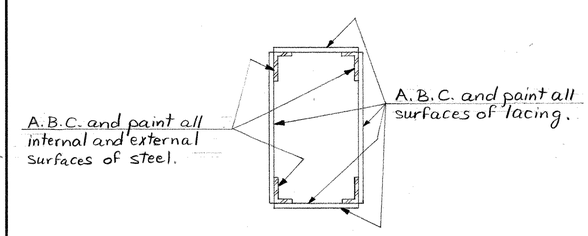
SECTION THRU TYPE ③ MEMBER
SCALE 3/4" = 1'-0"



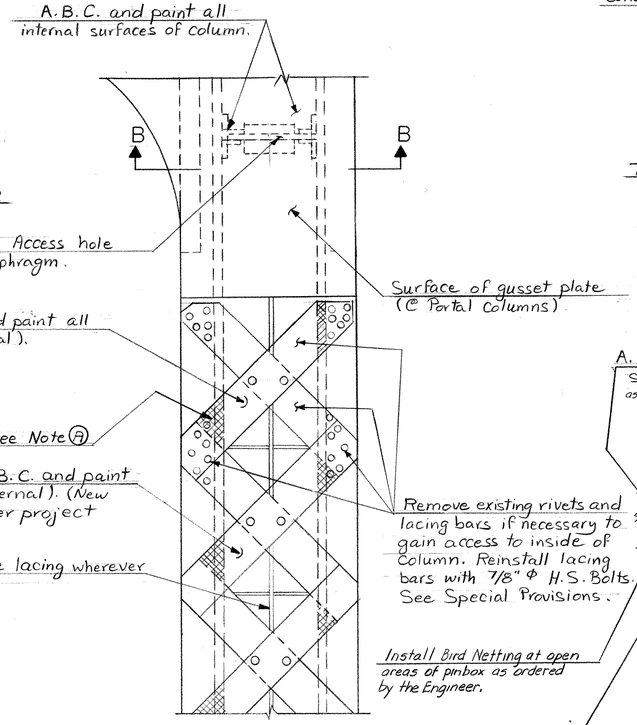
SECTION THRU TYPE ④ MEMBER
SCALE 3/4" = 1'-0"



SECTION THRU TYPE ⑤ MEMBER
SCALE 3/4" = 1'-0"



SECTION THRU TYPE ⑥ MEMBER
SCALE 3/4" = 1'-0"

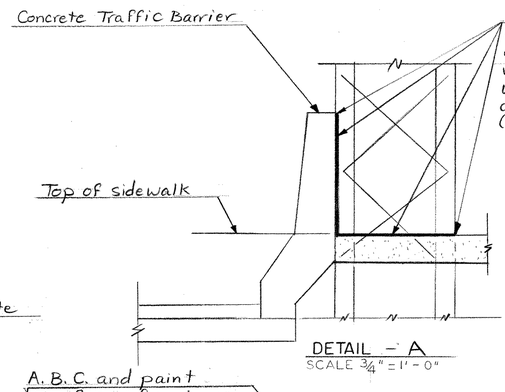


DETAIL "B"
SCALE 3/4" = 1'-0"
(Referenced from View of Portal, str. sht. 7)

NOTES FOR PAINTING OF LACING
(See Detail "B")

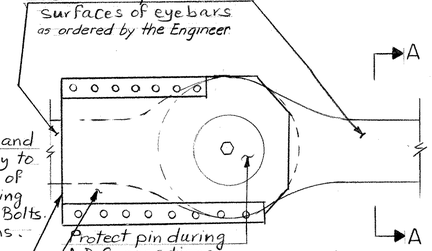
Ⓐ ▨ : This denotes surfaces located between the lacing and a structural member - to be abrasive blast cleaned and painted. (Typical of all lacing on all members in this Project).

Ⓑ Note that the lacing shown is illustrative only, the dimensions are not typical of all lacing in all locations.

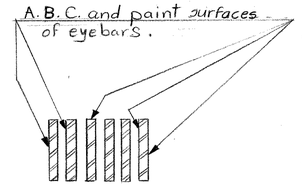


DETAIL - A
SCALE 3/4" = 1'-0"

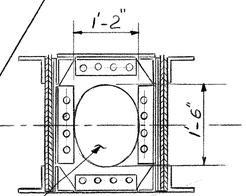
Note: See "View of Portal" on Str. Sht. 7, for typical location of Detail "A"



ELEVATION VIEW OF EYEBARS
SCALE 3/4" = 1'-0"



SECTION A - A
SCALE 3/4" = 1'-0"



SECTION B - B
SCALE 3/4" = 1'-0"

NOTES

1. A.B.C. = Abrasive Blast Clean.
2. The details on this sheet are intended for illustrative purposes only and the actual dimensions of members may vary.
3. For locations of Member Types ① thru ⑥, see Str. Sht. 7.

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.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN — PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

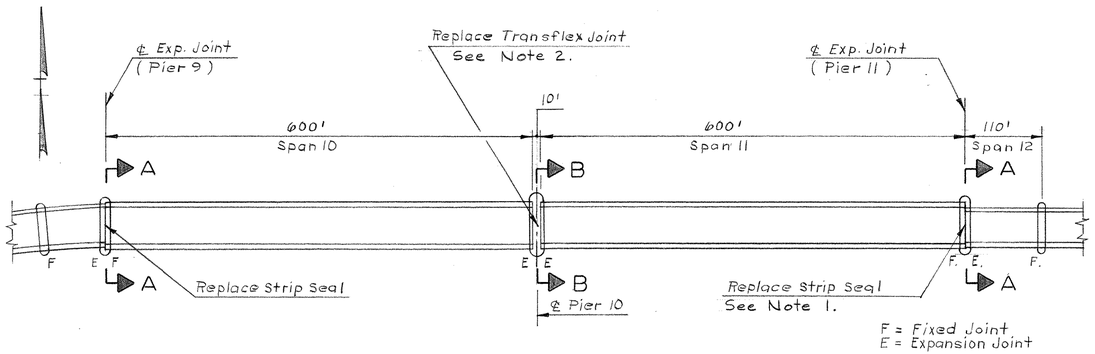
MEMB. SECTIONS (SPANS 10 & 11) & MISC. DET'LS.

ENGINEER BRIDGE DESIGN UNIT
DESIGNER RDD | DRAFTER RG/ASH | CHECKER WJO
APPROVED _____ DATE 7/28/95
STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 8 of 16

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

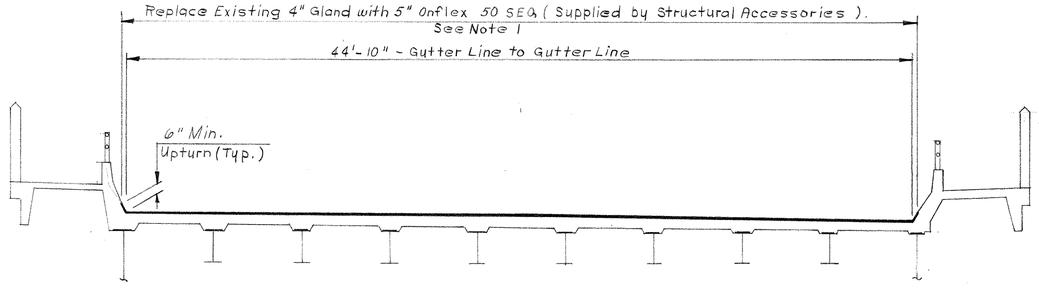
FORM NO. ENG 15A ED. 1-88

FHWA REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN	BHF-22(131)	82-252	1994	66	10-A	22



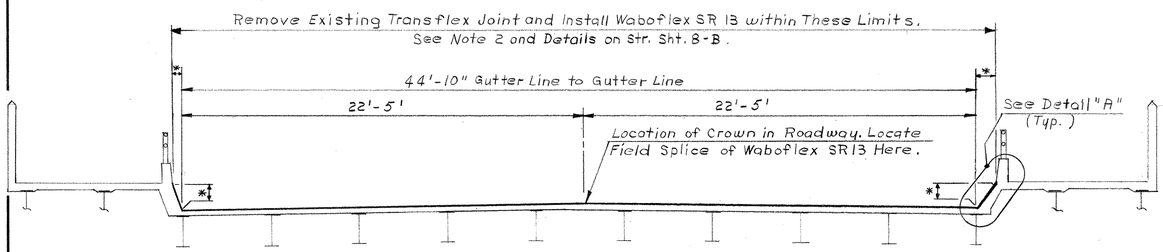
PLAN: ARRIGONI BRIDGE

SCALE 1" = 100'



SECTION A - A

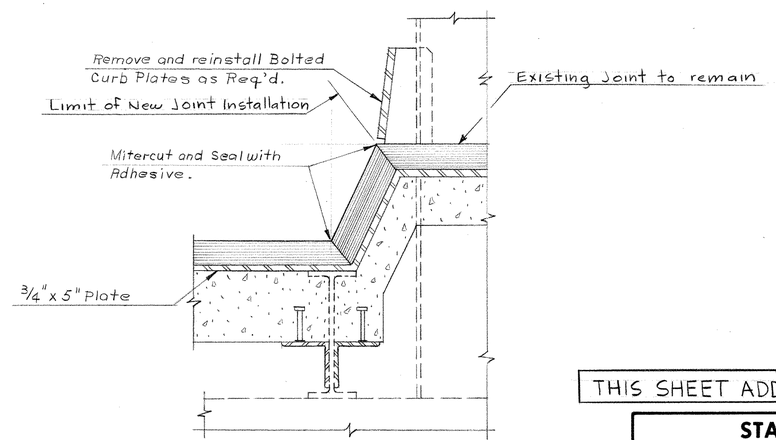
SCALE 1/4" = 1'-0"



*The Contractor shall field measure the curb dimensions prior to joint fabrication.

SECTION B - B

SCALE 1/4" = 1'-0"



DETAIL "A"

SCALE 1" = 1'-0"

NOTES

1. Replacement of neoprene strip seal glands shall be paid for under item " Replace Bridge Joint Gland ".
2. Replacement of the Transflex Joint shall be paid for under item " Prefabricated Expansion Joint (Movement Capacity 13") "
3. The Contractor's shop drawing shall include curb details of the new Waboflex SR 13 Joint.
4. The Waboflex SR 13 Joint shall only be installed when the ambient temperature is between 30°F and 70°F.

THIS SHEET ADDED APRIL , 1995

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NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

BRIDGE EXPANSION JOINT AT PIERS 9, 10 & 11

ENGINEER BRIDGE DESIGN UNIT

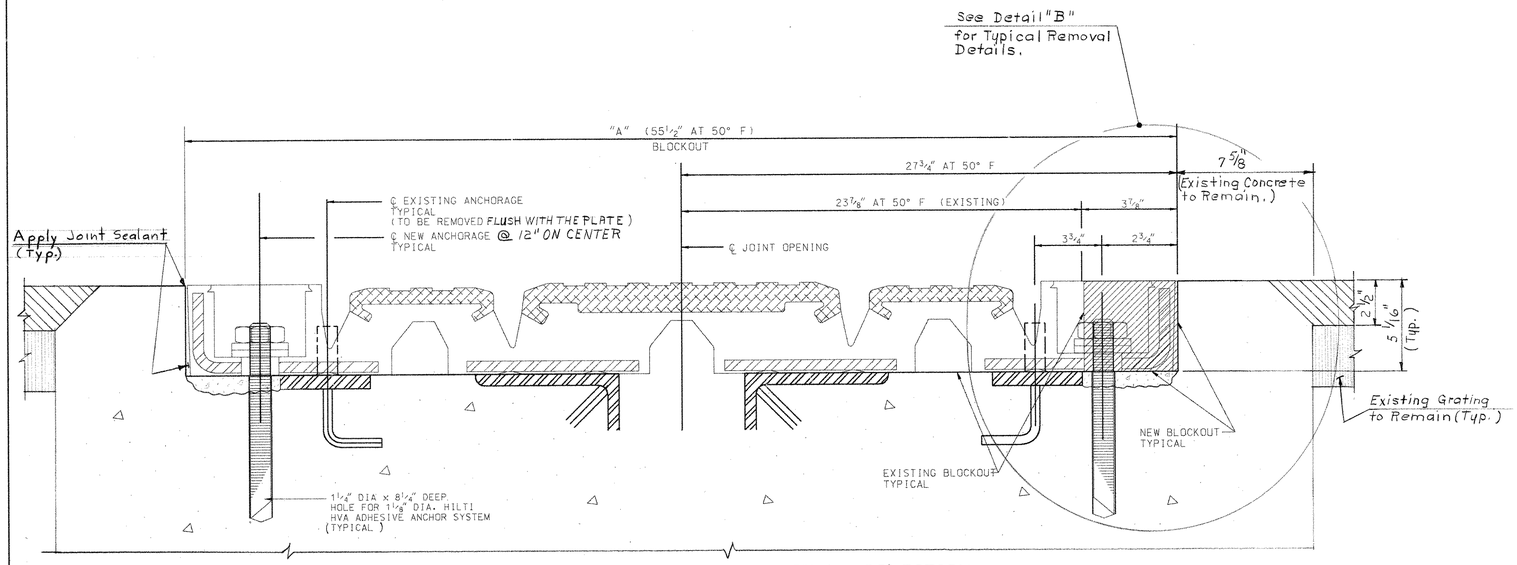
DESIGNER A.S.H. DRAFTER RG CHECKER RDD

APPROVED DATE 4/17/95

STRUCTURE NO. BRIDGE LOG NO. STRUCTURE SHEET NO. 8-A of 16

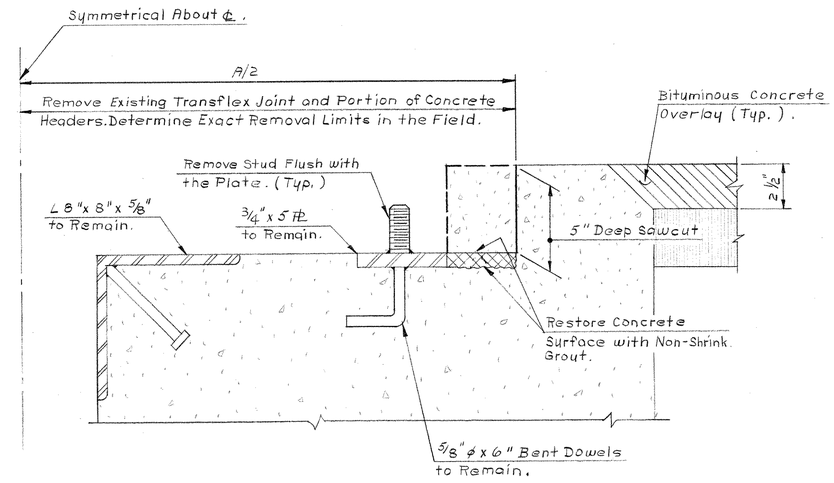
082991

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22(131)	82-252	1994	66	10-B	22



LENGTH OF DIMENSION " A "				
30° F	40° F	50° F	60° F	70° F
57.38"	56.44"	55.5"	54.5"	53.61"

FINAL CONDITION
BRIDGE EXPANSION JOINT
WABOFLEX MODEL SR 13
Scale: 3" = 1'-0"



DETAIL "B"
REMOVAL OF EXISTING TRANFLEX
MODEL 1300 JOINT AT PIER 10
SCALE 3" = 1'-0"

THIS SHEET ADDED APRIL , 1995

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

BRIDGE EXPANSION JOINT AT PIER 10

ENGINEER BRIDGE DESIGN UNIT
DESIGNER ASH | DRAFTER RLG | CHECKER RDD
APPROVED [signature] DATE 4/17/95
STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 8-B of 16

Dec. 5, 1994
B82X252C

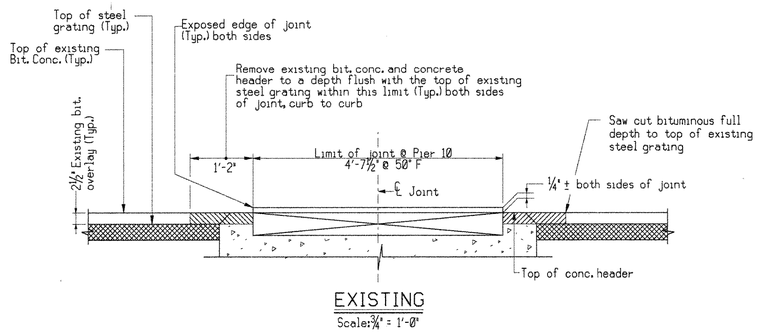
82-252

621-07

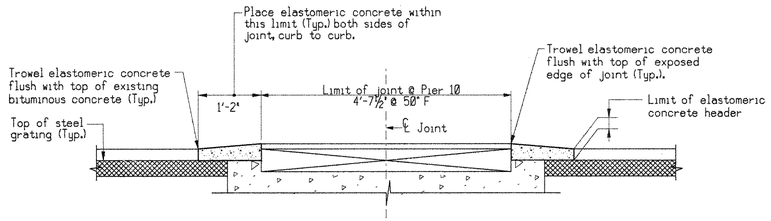
10-B

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN/PORTLAND	BHF-22(131)	82-252	1996	66	10-C	22

Note:
This change order detail was added to protect the Waboflex Model SR 13 which is protruding approximately ¼" ± above the existing header.



EXISTING
Scale: ¾" = 1'-0"



PROPOSED
Scale: ¾" = 1'-0"

- New elastomeric concrete header (14" wide)
- Existing Steel Grating
- Existing bituminous concrete and concrete header to be removed

INSTALLATION OF ELASTOMERIC CONCRETE HEADER
AT PIER 10, BR. NO. 00524

THIS SHEET ADDED 9/96

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF ARIGONI BRIDGE
ROUTE 66 OVER
THE CONNECTICUT RIVER

INSTALLATION OF ELASTOMERIC CONCRETE HEADER
AT PIER 10, BR. NO. 00524

ENGINEER BRIDGE DESIGN UNIT
DESIGNER BRB | DRAFTER BRB | CHECKER RDD
APPROVED [signature] DATE 9/3/96
STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 8-C of 16

82-252

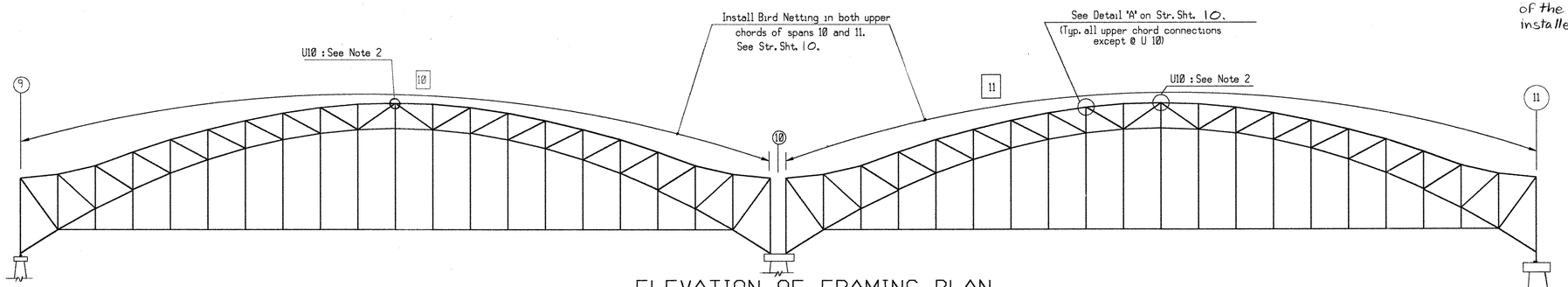
621-07

10-C

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN	BHF-22(131)	82-252	1993	66	11	22

NOTES

1. Cost of furnishing and installing bird netting to be paid for under item "Netting".
2. At U10 (on the top chords), the Contractor shall examine the situation in the field and make specific recommendations for a best installation of the bird netting. Subject to final approval of the Engineer, the bird netting will then be installed in accordance with these recommendations.



ELEVATION OF FRAMING PLAN

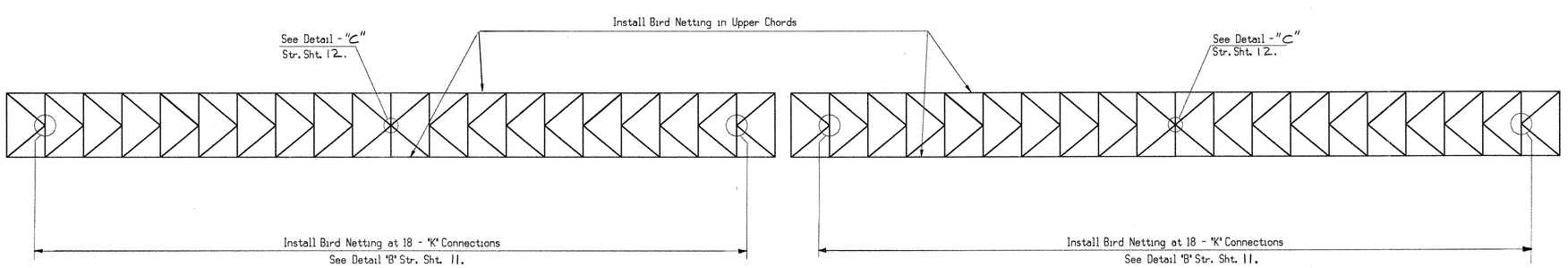
(SPANS 10 and 11)

Scale: 1"=50'

KEY

10 11 = Denote Span Numbers.

(9) (10) (11) = Denote Pier Numbers.



TOP VIEW OF FRAMING PLAN (SPANS 10 & 11)

Scale: 1"=50'

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

LOCATIONS OF BIRD NETTING

ENGINEER	BRIDGE DESIGN UNIT		
DESIGNER RDD	DRAFTER ASH	CHECKER WJD	
APPROVED R.D.D.		DATE 7/25/93	
STRUCTURE NO.		BRIDGE LOG NO.	STRUCTURE SHEET NO. 90F16

Jul 21, 1993
16:31:22
[50,7]B82X2528.DGN

82-252

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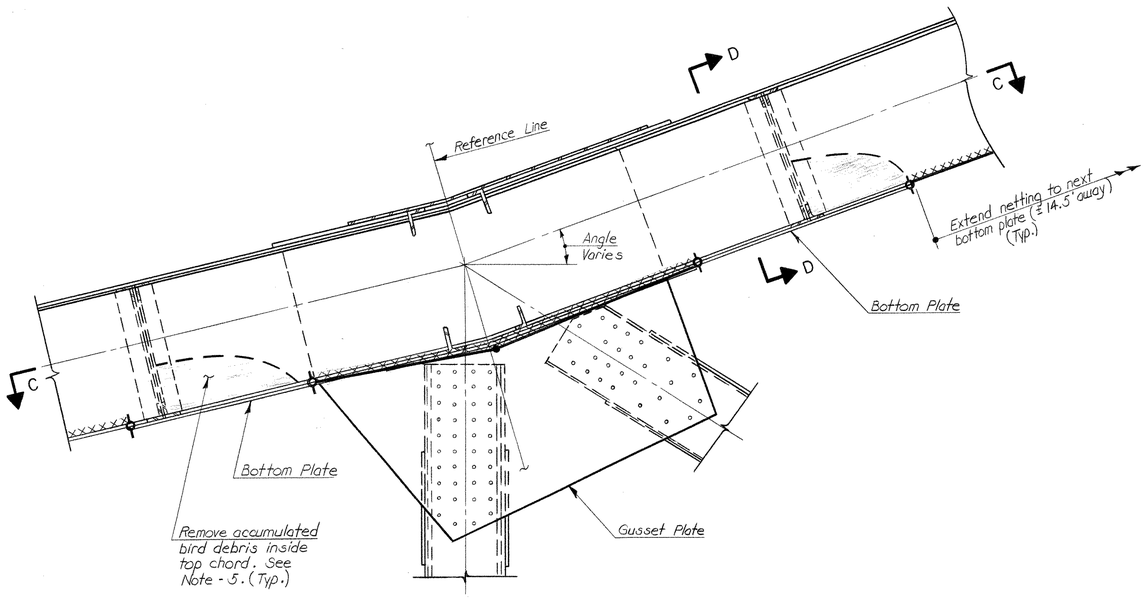
11

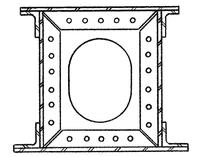
F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22(131)	82-252	1993	66	12	22



DETAIL "A"

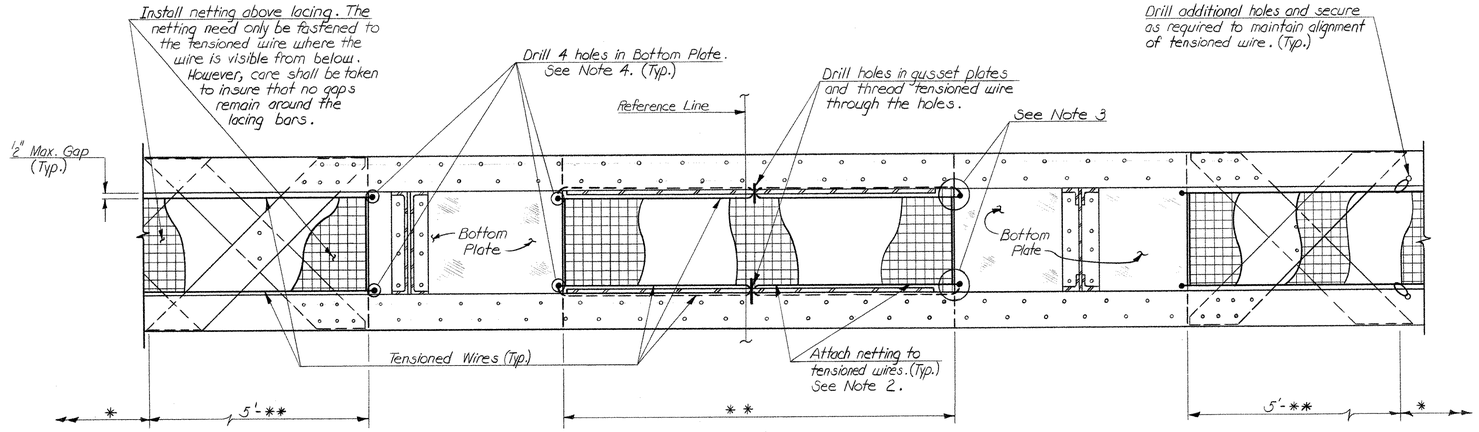
ELEVATION VIEW OF TYPICAL UPPER CHORD JOINT

Scale: 3/4" = 1'-0"



SECTION D - D

Scale: 3/4" = 1'-0"



SECTION C - C

Scale: 3/4" = 1'-0"

* - Within the limits indicated by this symbol, the netting shall be attached to the tensioned wire by non - removable clips.

** - Within the limits indicated by this symbol, the netting shall be attached to the tensioned wire by removable (and replacable) clips. This is to allow future access by D.O.T. inspection personnel.

NOTES

1. Materials

Netting: Netting shall be heavy-duty polyethylene or polypropylene with a maximum mesh size of 1-1/8" square.

Tensioned wires and clips: Shall be stainless steel.

2. Attachment of Netting to Tensioned Wire

Netting shall be installed taut and flat between the tensioned wires and held in place by clips. Spacing of clips shall be approximately 2' max.

3. Corners of Netting

Special care shall be taken to seal corners of the netting.

4. Size of Field Drilled Holes for Tensioned Wires

Size of holes shall be as recommended by the Installer, but in general will be approximately 1/16". In no case shall hole diam. exceed 1/4". Cost of drilling holes for tensioned wires to be included under item 'Netting'.

5. Removal of Bird Debris

Prior to painting, all bird debris shall be removed in accordance with item 'Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)'.

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

DETAILS OF BIRD NETTING - I

ENGINEER	BRIDGE DESIGN UNIT	
DESIGNER RDD	DRAFTER JJC	CHECKER WJD
APPROVED		DATE 7/28/93
STRUCTURE NO.	BRIDGE LOG NO.	STRUCTURE SHEET NO. 10 of 16

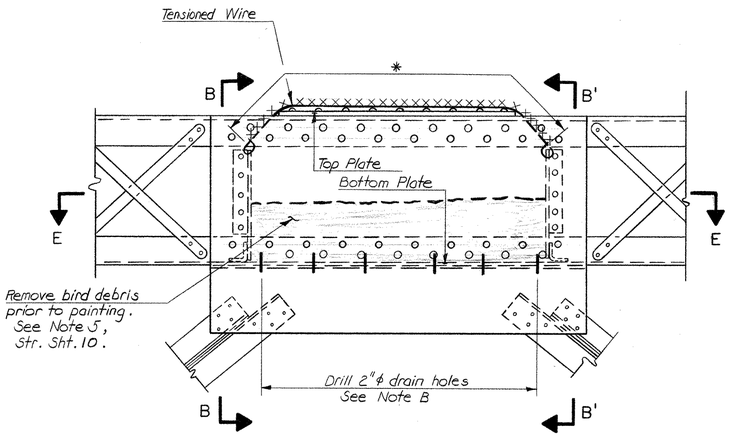
82-252

621-07

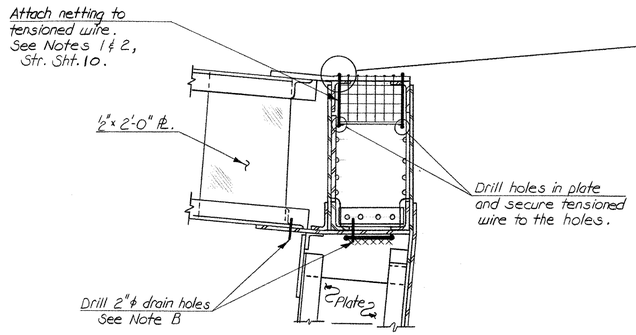
12

STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION — FORM NO ENG 15A ED. 1-88

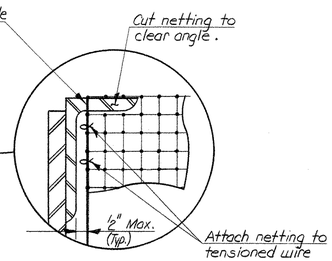
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.	Middletown - Portland	BHF-22(131)	82-252	1993	66	13	22



VIEW A - A
Scale : 3/4"=1'-0"



SECTION B - B
SECTION B' - B' (OPPOSITE HAND)
Scale : 3/4"=1'-0"

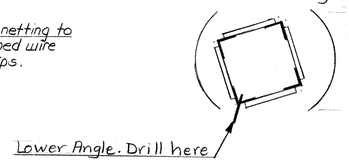


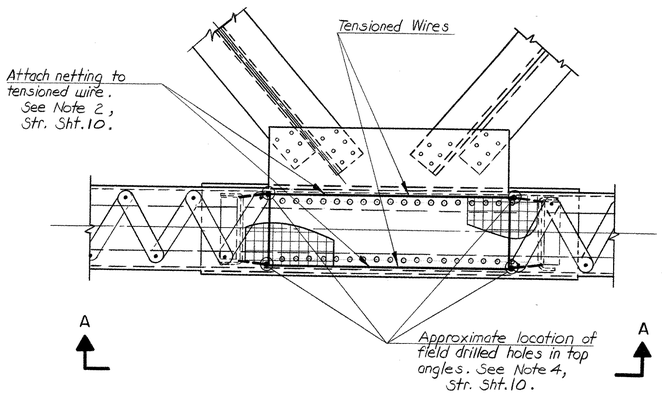
Notes:

A) For location of "K" connections see str. sht. 9.

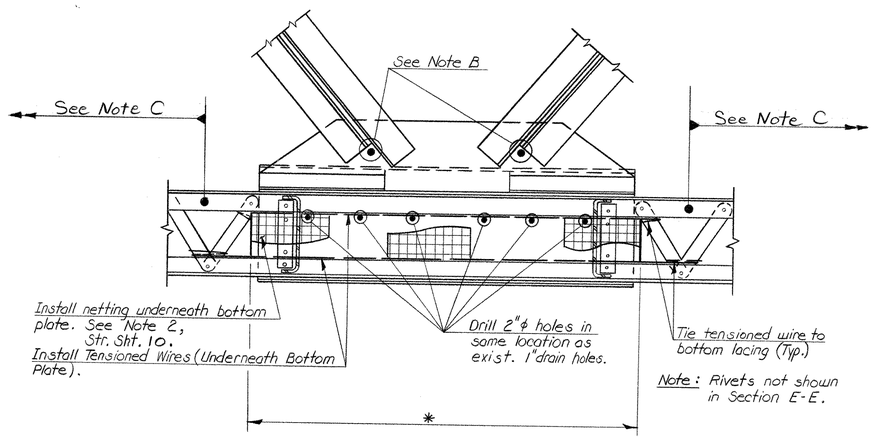
B) The Contractor shall drill 2" dia. holes in the lower gusset plate. Paid for under item "Field Drilled Holes".

C) The Contractor shall drill 1"Φ holes in the lower angle at a 5'± spacing to the truss columns. Paid for under "Field Drilled Holes".





DETAIL "B"
PLAN VIEW OF "K" CONNECTION
Scale : 3/4"=1'-0"



Note: Rivets not shown in Section E-E.

SECTION E - E
Scale : 3/4"=1'-0"

* - Within the limits indicated by this symbol, the netting shall be attached to the tensioned wire by nion - removable clips.

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.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

DETAILS OF BIRD NETTING - 2

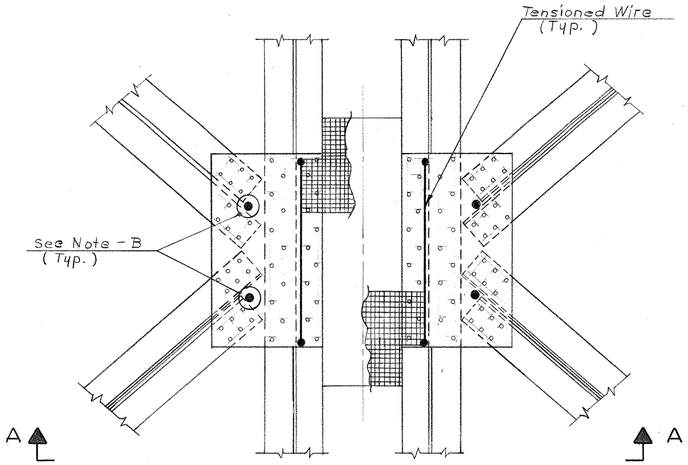
ENGINEER	BRIDGE DESIGN UNIT		
DESIGNER	RDD	DRAFTER JJC	CHECKER WJD
APPROVED			DATE 7/26/92
STRUCTURE NO.		BRIDGE LOG NO.	STRUCTURE SHEET NO. 11 OF 16

082091

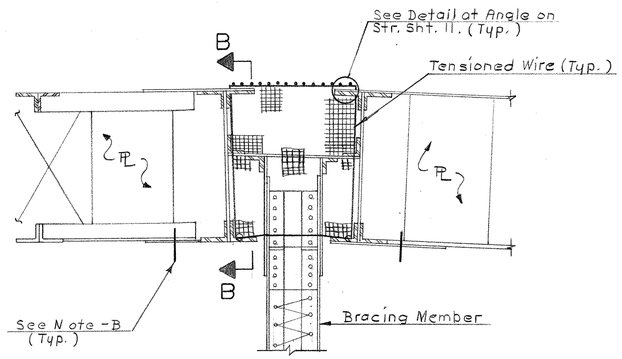
82-252

621-07

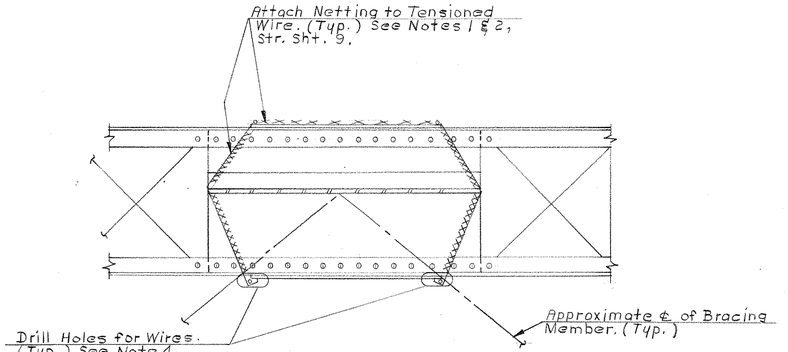
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN-PORTLAND	BHF-22(131)	82-252	1993	66	14	22



DETAIL "C"
PLAN VIEW OF CENTER STRUT AT UIO.
SCALE 3/4" = 1'-0"



VIEW A - A
SCALE 3/4" = 1'-0"



SECTION B - B
SCALE 3/4" = 1'-0"

NOTES

A. For location of these details see Str. Sht. 9.

B. The Contractor shall drill 2" dia. holes in the lower gusset plates. Paid for under item "Field Drilled Holes".

C. Use non-removable clips at this location.

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.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

DETAILS OF BIRD NETTING - 3

ENGINEER BRIDGE DESIGN UNIT

DESIGNER R.D.D. DRAFTER PG CHECKER WJD

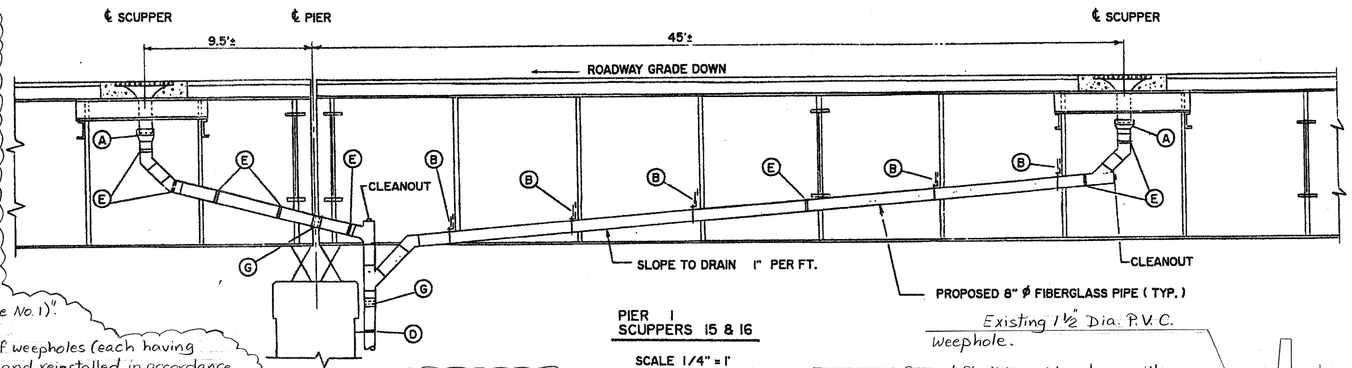
APPROVED _____ DATE 7/29/93

STRUCTURE NO. | BRIDGE LOG NO. | STRUCTURE SHEET NO. 12 of 16

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22.(13)	82-252	1993	66	15	22

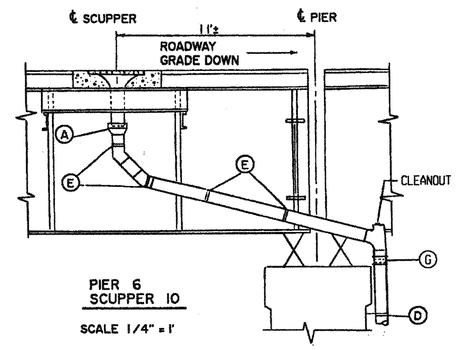
NOTES

1. Structure sheets 13-16 are partially reproduced from the original contract plans of project No. 82-223 (designed by H.N.T.B, and L.C. Associates) with the addition of new details and notes in "clouds". Existing conditions should be verified by the Contractor.
2. Existing pipe supports (shown on Str. Shts. 13-16) shall be unbolted from the existing steel, and the drainage pipes temporarily supported. The existing structural steel shall be abrasive blast cleaned, then painted with the zinc rich primer and the intermediate coat. The pipe supports shall then be reattached.
   All to be paid for under item "Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)".
3. Number of weepholes: The approximate number of weepholes (each having two support brackets) which shall be removed and reinstalled in accordance with Note 2 is as follows: (See "Det'l of Typ. Weephole", this sheet).
   Middletown Approach : 36
   Portland Approach : 80
4. Note that new galvanized nuts, bolts, and washers shall be used for reattaching all pipe supports. See Special Provisions.



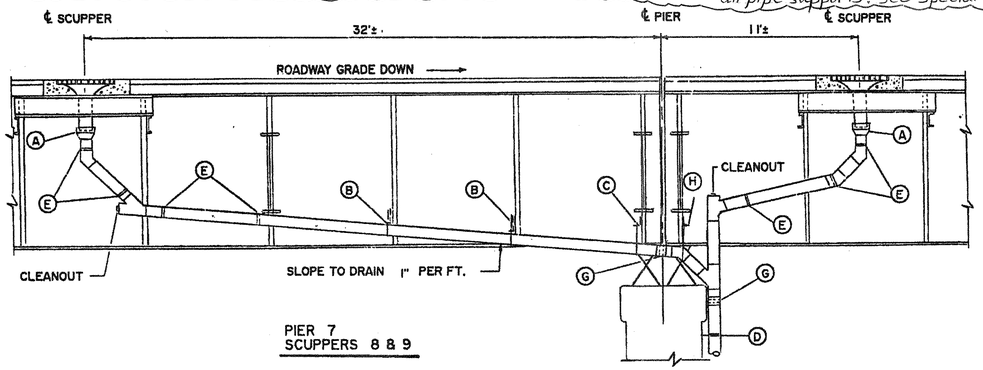
PIER 1
SCUPPERS 15 & 16

SCALE 1/4" = 1'



PIER 6
SCUPPER 10

SCALE 1/4" = 1'



PIER 7
SCUPPERS 8 & 9

SCALE 1/4" = 1'

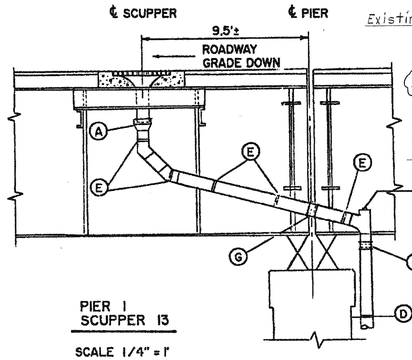
Existing 1½" Dia. P.V.C. Weephole.

Existing Fabric reinforced Flexible rubber hose with two Stainless steel hose clamps.

Existing 3/8"x5" Bent plate (Typ).

See Notes 2 & 3

Existing ½ Dia. U-Bolt (Typ)



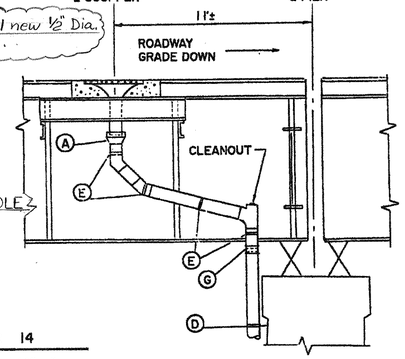
PIER 1
SCUPPER 13

SCALE 1/4" = 1'

DETAIL OF TYP. WEEPHOLE
N.T.S

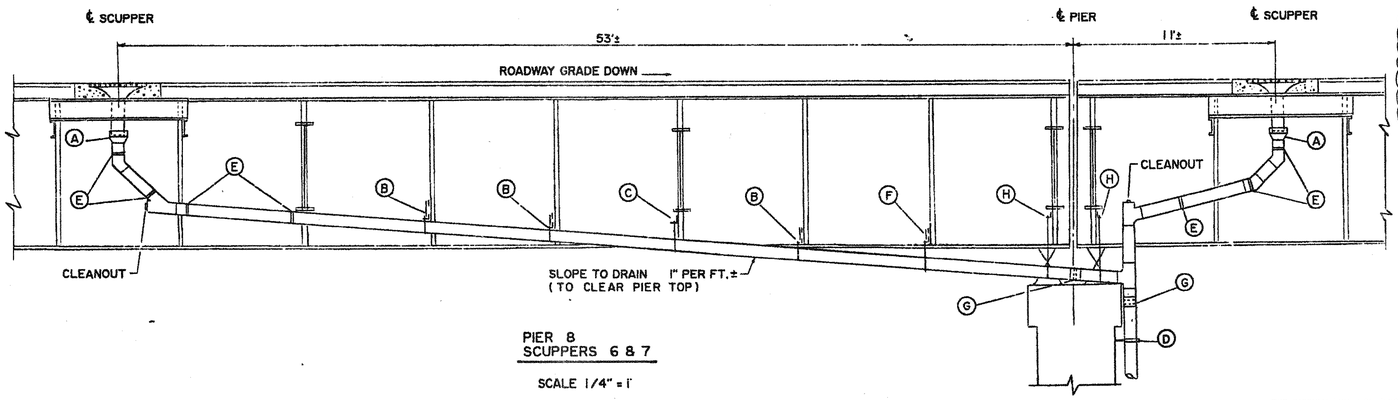
Exist. 1½" Dia. P.V.C. plastic pipe.

Install new ½" Dia. bolts.



PIER 2
SCUPPER 14

SCALE 1/4" = 1'



PIER 8
SCUPPERS 6 & 7

SCALE 1/4" = 1'

Remove and reinstall pipe Supports at all locations indicated by (B), (C), (E), (F), & (H) on str. shts. 13 & 14. For details of these pipe supports see str. shts. 15 & 16. Also see Note 2, this sheet.

LEGEND

- (A) SEE " PIPE REDUCER "
- (B) SEE " PIPE SUPPORT ON EXISTING STIFFENER " TYPE A
- (C) SEE " PIPE SUPPORT BELOW FLOORBEAM " TYPE A
- (D) SEE " PIPE CLAMP ON EXISTING PIER & STR. MEMBER "
- (E) SEE " PIPE SUPPORT ON EXISTING WEB "
- (F) SEE " PIPE SUPPORT ON EXISTING STIFFENER " TYPE B
- (G) SEE " FLEXIBLE COUPLING "
- (H) SEE " PIPE SUPPORT BELOW FLOORBEAM " TYPE B

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 THE ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

PAINTING AT DRAINAGE SUPPORTS - 1

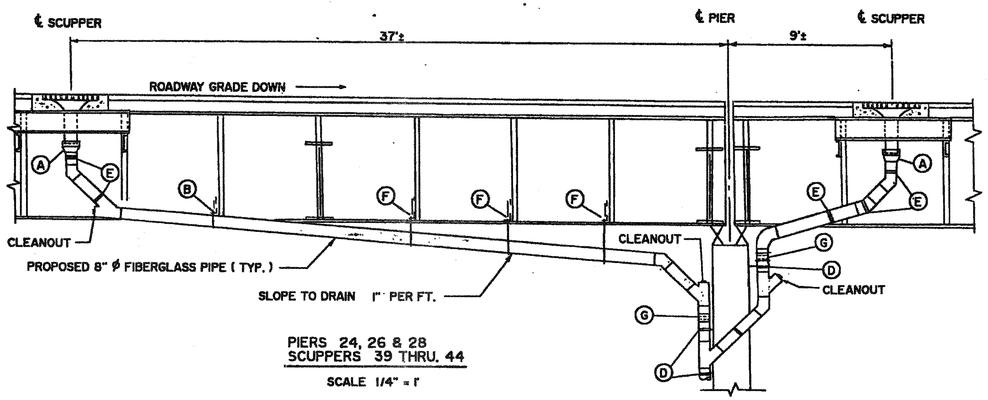
ENGINEER BRIDGE DESIGN UNIT

DESIGNER RDD | DRAFTER SCAN | CHECKER WJD

APPROVED [signature] DATE 7/26/93

STRUCTURE NO. | BRIDGE LOG NO. 00524 | STRUCTURE SHEET NO. 13 of 16

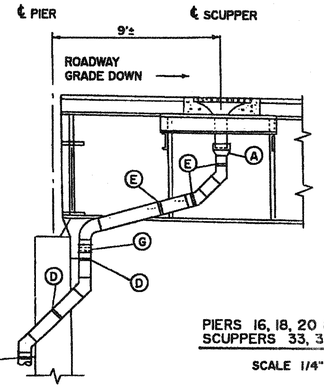
F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22(131)	82-252	1993	66	16	22



PIERS 24, 26 & 28
SCUPPERS 39 THRU. 44

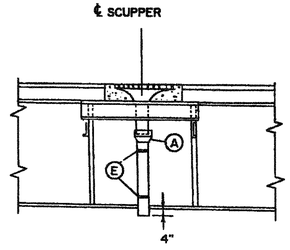
SCALE 1/4" = 1'

NOTE: Work this sheet with str. sht. 13



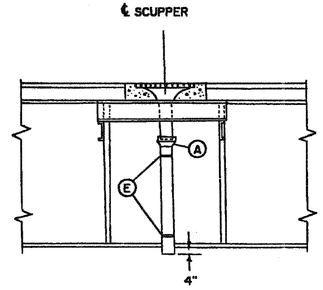
PIERS 16, 18, 20 & 22
SCUPPERS 33, 34 36 & 38

SCALE 1/4" = 1'



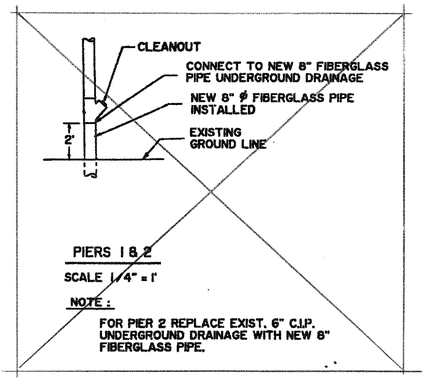
SPANS 20, 22 & 29
SCUPPERS 35, 37 & 45

SCALE 1/4" = 1'



SPANS 4, 5, 12, 13, 15 & 16
SCUPPERS 11, 12, 23, 24, 25, 26, 27, 29, 30, 31 & 32

SCALE 1/4" = 1'

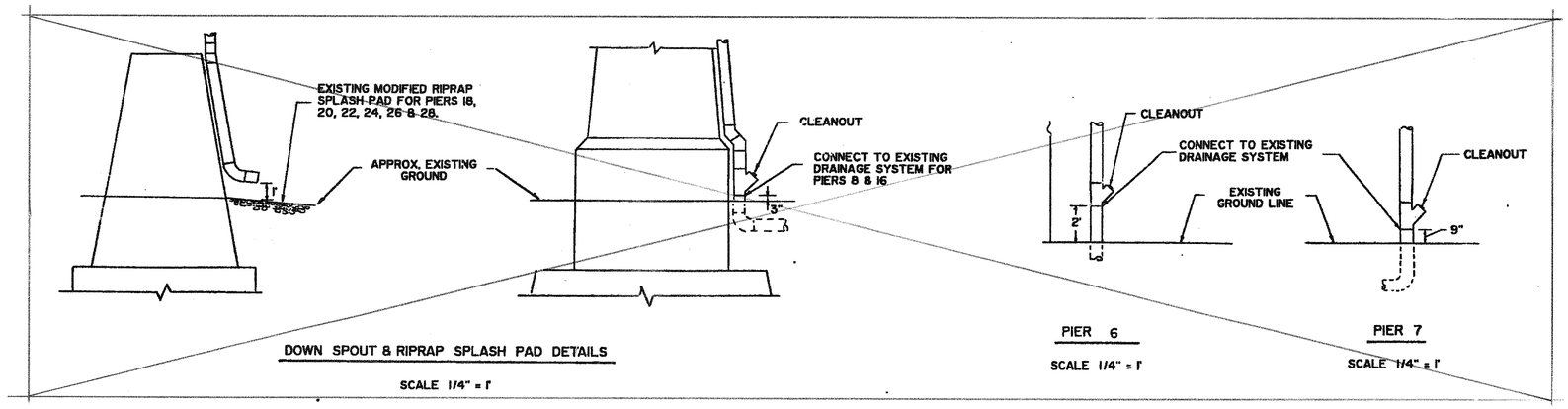


PIERS 1 & 2

SCALE 1/4" = 1'

NOTE:

FOR PIER 2 REPLACE EXIST. 6" C.I.P. UNDERGROUND DRAINAGE WITH NEW 8" FIBERGLASS PIPE.



DOWN SPOUT & RIPRAP SPLASH PAD DETAILS

SCALE 1/4" = 1'

PIER 6

SCALE 1/4" = 1'

PIER 7

SCALE 1/4" = 1'

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NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE

ROUTE 66 OVER THE CONNECTICUT RIVER

PAINTING AT DRAINAGE SUPPORTS - 2

ENGINEER BRIDGE DESIGN UNIT

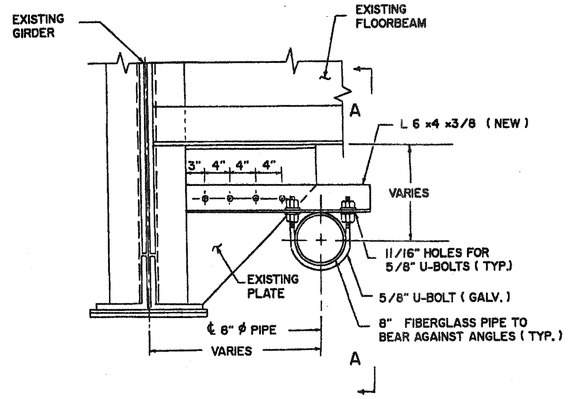
DESIGNER RDD | DRAFTER SCAN | CHECKER WJD

APPROVED [signature] DATE 7/28/95

STRUCTURE NO. | BRIDGE LOG NO. 00524 | STRUCTURE SHEET NO. 14 OF 16

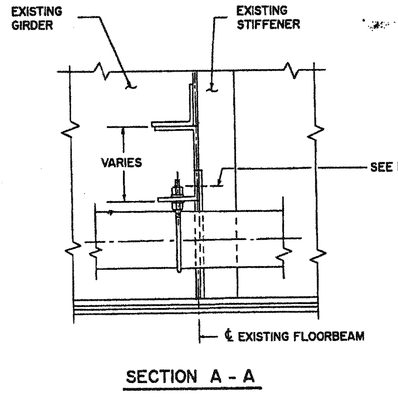
F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22(13)	82-252	1993	66	17	22

NOTES: 1. Work this sheet with Str. Sht. 13.
2. Use 1/2"ϕ Bolts for connections.

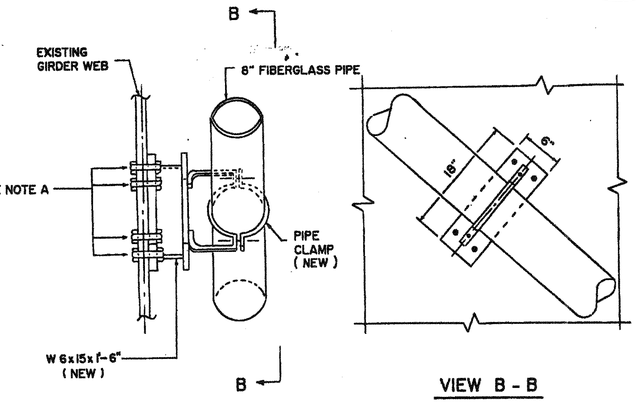


PIPE SUPPORT - BELOW FLOORBEAM (TYPE A)

NOT TO SCALE



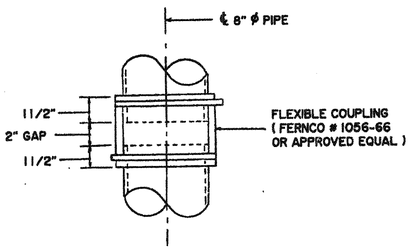
SECTION A - A



VIEW B - B

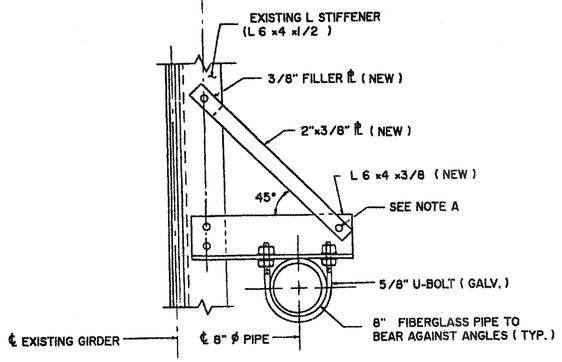
PIPE SUPPORT - ON EXISTING WEB

NOT TO SCALE



FLEXIBLE COUPLING

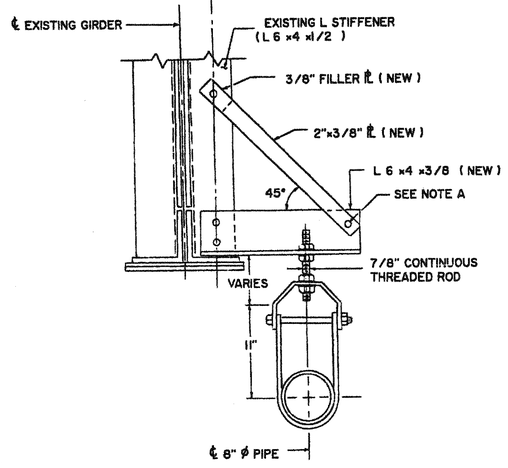
NOT TO SCALE



PIPE SUPPORT - ON EXISTING STIFFENER

(TYPE A)

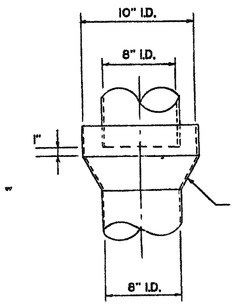
NOT TO SCALE



PIPE SUPPORT - ON EXISTING STIFFENER

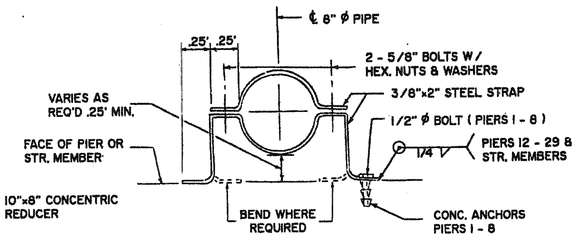
(TYPE B)

NOT TO SCALE



PIPE REDUCER

NOT TO SCALE



PIPE CLAMP - ON EXISTING PIER & STR. MEMBER

NOT TO SCALE

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NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

PAINTING AT DRAINAGE SUPPORTS - 3

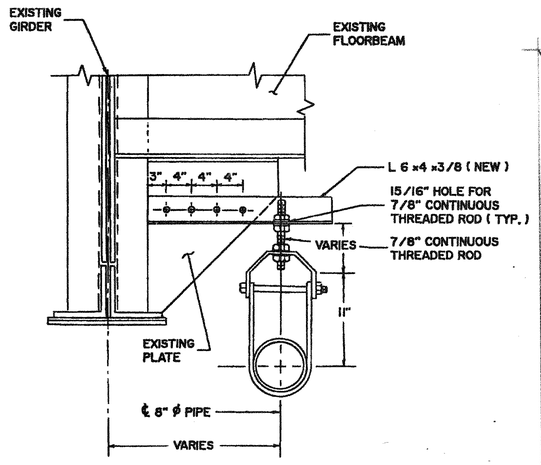
ENGINEER	BRIDGE DESIGN UNIT		
DESIGNER ROD	DRAFTER SCAN	CHECKER WJD	
APPROVED		DATE 7/28/93	
STRUCTURE NO.		BRIDGE LOG NO. 00524	STRUCTURE SHEET NO. 15 of 16

82-252

621-07

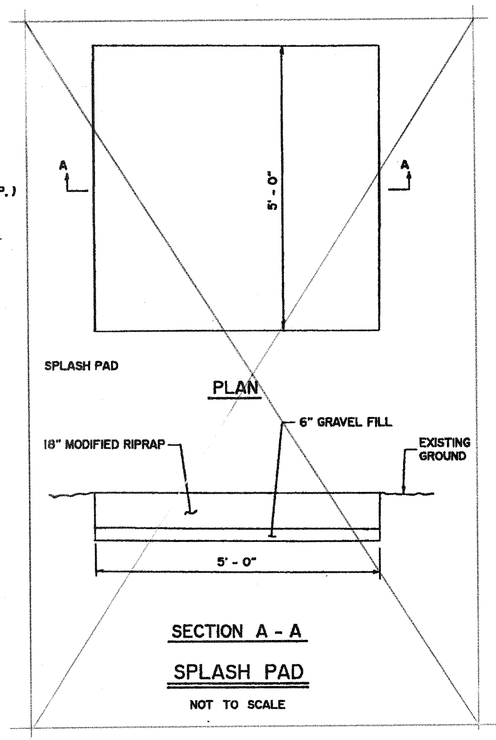
17

F.H.W.A. REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN	MIDDLETOWN - PORTLAND	BHF-22(131)	82-252	1993	66	18	22



PIPE SUPPORT - BELOW FLOORBEAM (TYPE B)

NOT TO SCALE

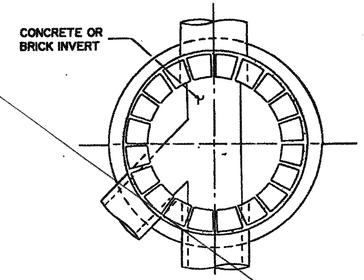


PLAN

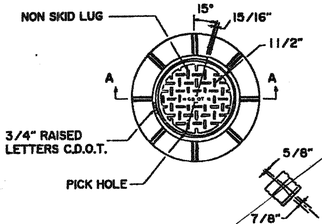
SECTION A - A

SPLASH PAD

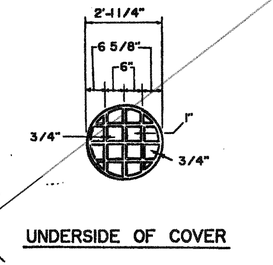
NOT TO SCALE



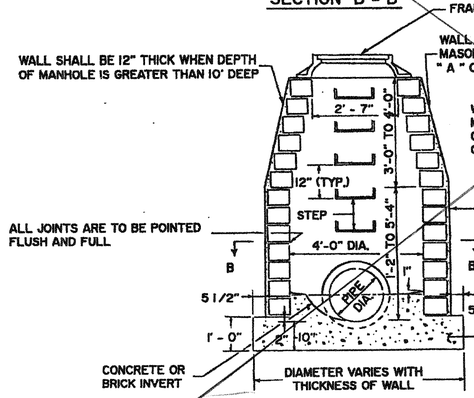
SECTION B - B



PLAN



UNDERSIDE OF COVER



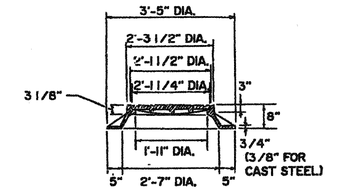
NOTE : CHANNELS MAY BE SHAPED IN CONCRETE BASE OF MANHOLE OR FORMED OF BRICK OR MASONRY

VERTICAL SECTION

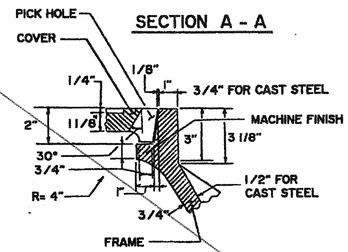
MANHOLE

NOT TO SCALE

MASONRY CONCRETE UNITS OR CLASS "A" CONCRETE



SECTION A - A



DETAIL OF SEAT FRAME & COVER *

	CAST STEEL	CAST IRON
* APPR. WEIGHT OF COVER :	134 LB	184 LB
APPR. WEIGHT OF FRAME :	227 LB	312 LB

NOTE: Work this sheet with Str, Sht. 13.

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NO.	DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

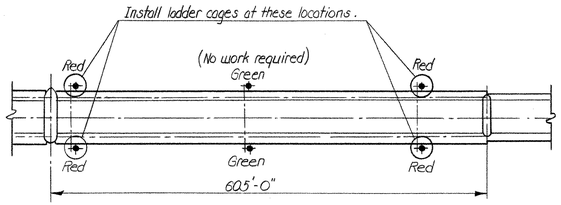
PAINTING AT DRAINAGE SUPPORTS - 4

ENGINEER	BRIDGE DESIGN UNIT		
DESIGNER	RDD	DRAFTER SCAN	CHECKER WJD
APPROVED			DATE 7/28/93
STRUCTURE NO.		BRIDGE LOG NO. 00524	STRUCTURE SHEET NO. 16 of 16

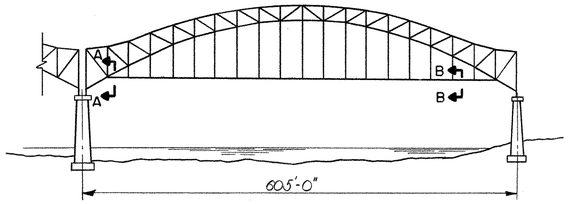
82-252

621-07

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	Middletown/Portland	BHF-22(131)	82-252	1994	66	18A	22



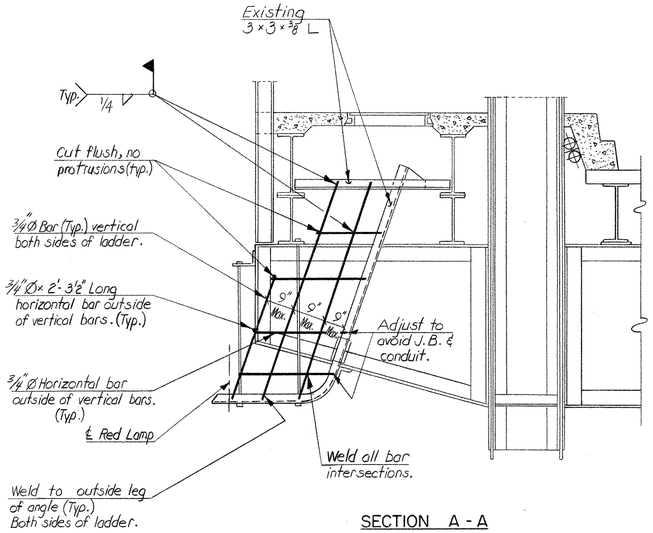
PLAN OF LADDER CAGE LOCATION
Scale : 1"=100'



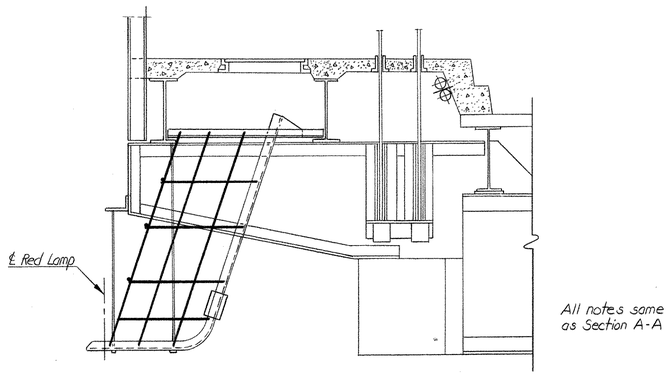
ELEVATION OF PORTLAND ARCH
Scale : 1"=100'

LADDER CAGE GENERAL NOTES

1. All reinforcement shall be uncoated 3/4"Ø bars and shall be weldable and conform to ASTM A36.
2. Welding details and procedures shall conform to the ANSI/AASHTO/AWS D1.5-88 Bridge Welding Code.
3. Cages shall be installed prior to the painting of the superstructure and painted along with the superstructure.
4. Field verify all required dimensions prior to fabrication.
5. Cost of this work to be paid for under "Structural Steel" (Hundred weight).



SECTION A - A



All notes same as Section A-A

SECTION B - B

PROPOSED LADDER CAGE
Scale : 1/2"=1'-0"

THIS SHEET ADDED AUGUST, 1994

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN / PORTLAND
ROUTE 66 & 17
ARRIGONI BRIDGE
OVER
CONNECTICUT RIVER
CHANNEL LIGHT LADDER CAGE

ENGINEER	BRIDGE DESIGN UNIT	
DESIGNER KJB	DRAFTER JJC	CHECKER RDD
APPROVED		DATE 8/26/94
STRUCTURE NO.	BRIDGE LOG NO. 00524	STRUCTURE SHEET NO. 16A OF 16

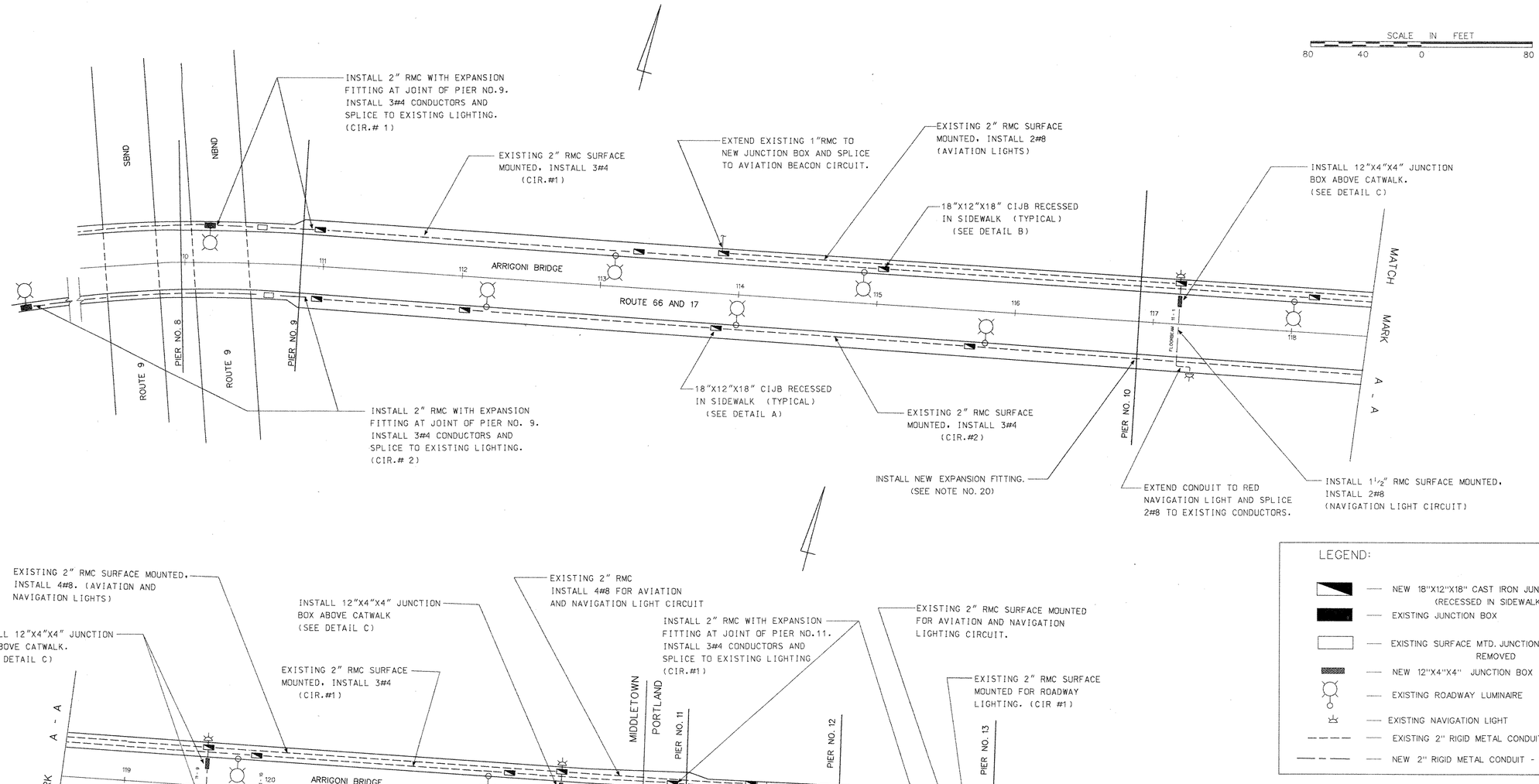
NO.	DATE	DESCRIPTION

REVISIONS

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.

F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN & PORTLAND	BHF-22(131)	82-252	1992	66/17	18B	22

SCALE IN FEET
80 40 0 80



LEGEND:

- NEW 18"X12"X18" CAST IRON JUNCTION BOX (RECESSED IN SIDEWALK)
- EXISTING JUNCTION BOX
- EXISTING SURFACE MTD. JUNCTION BOX TO BE REMOVED
- NEW 12"X4"X4" JUNCTION BOX
- EXISTING ROADWAY LUMINAIRE
- EXISTING NAVIGATION LIGHT
- EXISTING 2" RIGID METAL CONDUIT - SURFACE MTD.
- NEW 2" RIGID METAL CONDUIT - SURFACE MTD.

THIS SHEET ADDED DECEMBER 1994

TRAFFIC ENGINEERING	NAME	DATE
	PJS	11/94
	PJS	11/94
DESIGN BY	PJS	11/94
DRAWN BY	SJN	11/94
CHECKED BY		

REVISIONS		
NO.	DATE	DESCRIPTION

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUR. OF ENGINEERING & HWY. OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

MIDDLETOWN / PORTLAND
ROUTE 66 & 17
ARRIGONI BRIDGE
ELECTRICAL

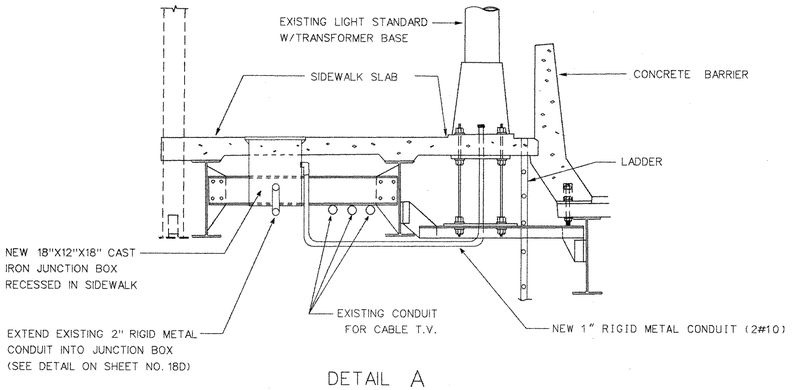
SUBMITTED BY _____ TRAFFIC SUPERVISING ENG. DATE 12/94
APPROVED _____ ENGINEER OF TRAFFIC DATE 12/94

SCALE NONE

82-252

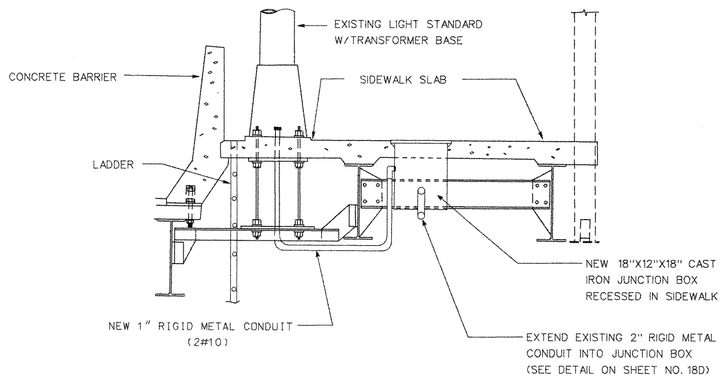
621-07

F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN/PORTLAND	BHF-22(131)	82-252	1994	66	18C	22



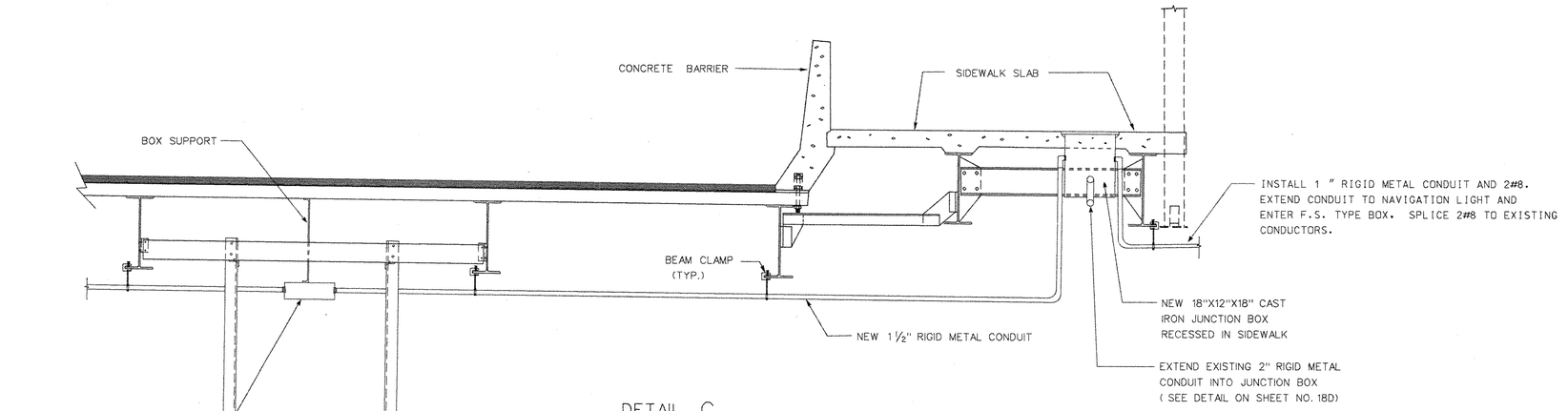
DETAIL A

JUNCTION BOX RECESSED IN SIDEWALK
FOR ROADWAY LIGHTING - SOUTH SIDE
(TYPICAL)



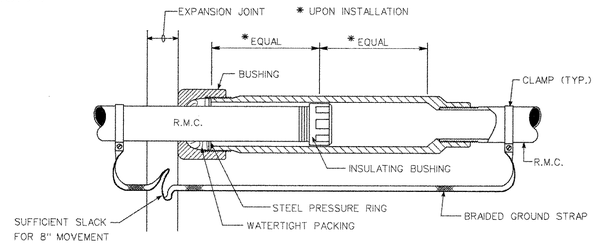
DETAIL B

JUNCTION BOX RECESSED IN SIDEWALK
FOR ROADWAY LIGHTING - NORTH SIDE
(TYPICAL)



DETAIL C

JUNCTION BOX RECESSED IN SIDEWALK
FOR AVIATION AND NAVIGATION
BEACON (TYPICAL)



EXPANSION FITTING (8" MOVEMENT)

TO BE USED AT ALL EXPANSION JOINTS

GENERAL NOTES:

(1) ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES, CONNECTICUT SPECIFICATIONS FORM 814, FORM 814 SUPPLEMENTS, AND UTILITY COMPANY REGULATIONS.

(2) IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR A COMPLETE ELECTRICAL INSTALLATION. IT IS NOT THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO INCLUDE EVERY DETAIL OF ELECTRICAL WORK REQUIRED TO BE PERFORMED BY THE CONTRACTOR TO MAKE A COMPLETE INSTALLATION. ITEMS NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR INCLUDED IN THE SPECIFICATIONS, THAT ARE REQUIRED TO BE PERFORMED BY THE CONTRACTOR TO PERFORM HIS WORK ARE CONSIDERED TO BE INCLUDED AS PART OF HIS WORK.

(3) ACTUAL LENGTH AND LOCATION OF WIRE, CONDUIT AND JUNCTION BOXES MAY VARY FROM THAT SHOWN ON THE PLANS.

(4) LOCATION OF EXISTING ILLUMINATION ON THE PLANS IS APPROXIMATE.

(5) ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL MATERIALS SHALL BE OF THE BEST QUALITY FOR THE PURPOSE INTENDED.

(6) ALL PROPOSED EQUIPMENT SHALL BE NEW AND UNDERWRITER'S LABORATORY APPROVED.

(7) THE CONTRACTOR SHALL PROVIDE THE STATE A COMPLETE SET OF REPRODUCIBLE, AS-BUILT DRAWINGS CLEARLY INDICATING ANY DEVIATIONS FROM THE DESIGN AS SHOWN ON THESE DRAWINGS.

(8) THE CONTRACTOR SHALL CONTACT THE CONN. D.O.T. DISTRICT 1 ELECTRICAL SUPERVISOR AT 566-3156 WHEN ACCESS TO A CIRCUIT IS REQUIRED.

(9) TAPE ALL UNUSED CONDUCTORS.

(10) CONDUCTORS SHALL BE COPPER, INSULATION TYPE XHHW AND RATED FOR 600 VOLTS. CONDUCTORS SHALL BE FACTORY COLORED CODED USING THE SAME CODE THROUGHOUT EACH LIGHTING CIRCUIT. COLORS SHALL BE AS FOLLOWS: BLACK, RED, AND BLUE.

(11) INSTALL NO. 8 BARE COPPER GROUNDING CONDUCTOR THROUGHOUT ALL LIGHTING CIRCUITS AS REQUIRED.

(12) CONTRACTOR SHALL MAINTAIN CONTINUOUS OPERATION OF ALL NAVIGATION, AVIATION AND ROADWAY LIGHTING AT ALL TIMES DURING CONSTRUCTION.

(13) ALL EXISTING JUNCTION BOXES, USED FOR ROADWAY, NAVIGATION AND AVIATION LIGHTING UNDER THE ARCH SPAN STRUCTURE, SHALL BE REMOVED.

(14) REMOVE EXISTING 1½" RIGID METAL CONDUIT, WIRE AND JUNCTION BOX NORTH/SOUTH ALONG FLOORBEAM 11-3 AND REPLACE WITH NEW 1½" RIGID METAL CONDUIT, WIRE AND 12"X4"X4" JUNCTION BOX FOR RED NAVIGATION LIGHT ON SOUTH SIDE. (JUNCTION BOX TO BE LOCATED ABOVE CATWALK)

(15) REMOVE EXISTING 1½" RIGID METAL CONDUIT, WIRE AND JUNCTION BOX NORTH/SOUTH ALONG FLOORBEAM 11-9 AND REPLACE WITH NEW 1½" RIGID METAL CONDUIT, WIRE AND 12"X4"X4" JUNCTION BOX FOR GREEN NAVIGATION LIGHT. (JUNCTION BOX TO BE LOCATED ABOVE CATWALK)

(16) REMOVE EXISTING 1" RIGID METAL CONDUIT AND WIRE NORTH/SOUTH ALONG FLOORBEAM 11-10. INSTALL 1" RIGID METAL CONDUIT, WITH 2*8 BETWEEN NEW 12"X4"X4" JUNCTION BOX ON SOUTH SIDE OF FLOORBEAM 11-9 TO EXISTING JUNCTION BOX ON SOUTH SIDE OF FLOORBEAM 11-10, AND SPLICE 2*8 TO EXISTING CONDUCTORS FOR AVIATION LIGHTS.

(17) REMOVE EXISTING 1½" RIGID METAL CONDUIT, WIRE AND JUNCTION BOX NORTH/SOUTH ALONG FLOORBEAM 11-1 AND REPLACE WITH NEW 1½" RIGID METAL CONDUIT, WIRE AND 12"X4"X4" JUNCTION BOX FOR RED NAVIGATION LIGHT. (JUNCTION BOX TO BE LOCATED ABOVE CATWALK)

(18) AT PIER NO. 9, REMOVE JUNCTION BOX, WHERE INDICATED ON THE PLANS, AND EXTEND 2" RIGID METAL CONDUIT TO NEW JUNCTION BOX RECESSED IN SIDEWALK OF ARCH SPAN. TYPICAL TO NORTH AND SOUTH SIDE OF BRIDGE.

(19) AT PIER NO. 11, REMOVE JUNCTION BOX, WHERE INDICATED ON THE PLANS, AND EXTEND 2" RIGID METAL CONDUIT TO NEW JUNCTION BOX RECESSED IN SIDEWALK OF ARCH SPAN. TYPICAL TO NORTH AND SOUTH SIDE OF BRIDGE.

(20) AT PIER NO. 10, REMOVE EXISTING EXPANSION FITTING ON THE SOUTH SIDE OF BRIDGE, REALIGN EXISTING 2" RIGID METAL CONDUIT AND INSTALL NEW EXPANSION FITTING. THE (2) EXPANSION FITTINGS ON THE NORTH SIDE OF BRIDGE SHALL BE REPLACED AT THE DISCRETION OF THE ENGINEER.

TRAFFIC ENGINEERING	NAME	DATE
DESIGN BY	D.J.S.	11/94
DRAWN BY	P.J.S.	11/94
CHECKED BY	S.J.N.	11/94

DIVISION OF TRAFFIC ENGINEERING CADD

THIS SHEET ADDED DECEMBER 1994

REVISIONS		
NO.	DATE	DESCRIPTION

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUR. OF ENGINEERING & HWY. OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

MIDDLETOWN / PORTLAND
ROUTE 66 & 17
ARRIGONI BRIDGE
ELECTRICAL

SUBMITTED BY _____ DATE 12/8
TRAFFIC SUPERVISING ENG.
APPROVED _____ DATE 12/14
ENGINEER OF TRAFFIC

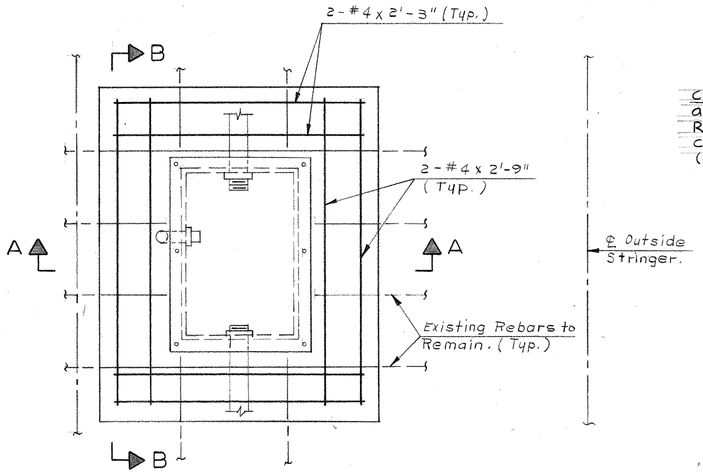
SCALE NONE

82-252

18C

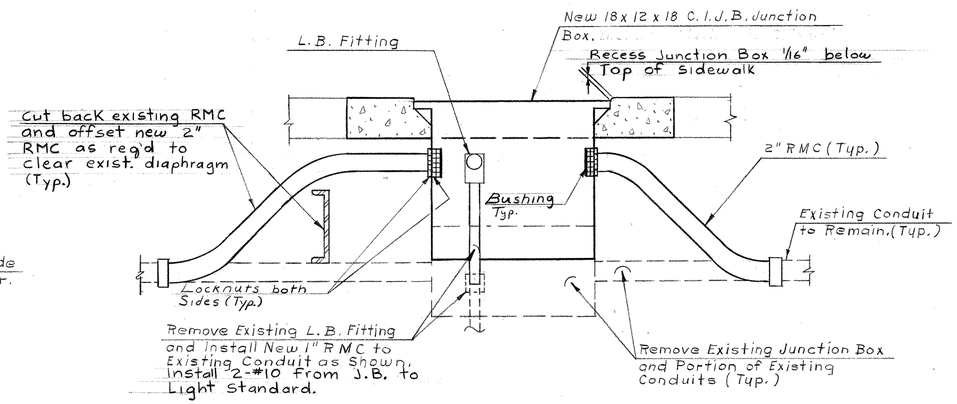
STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION — FORM NO ENG 15A ED. 1-88

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN-PORTLAND	BHF-22(131)	82-252	1994	66	18-D	22



PLAN - JUNCTION BOX REPLACEMENT - (SEE NOTE 4)

SCALE 1½" = 1'-0"

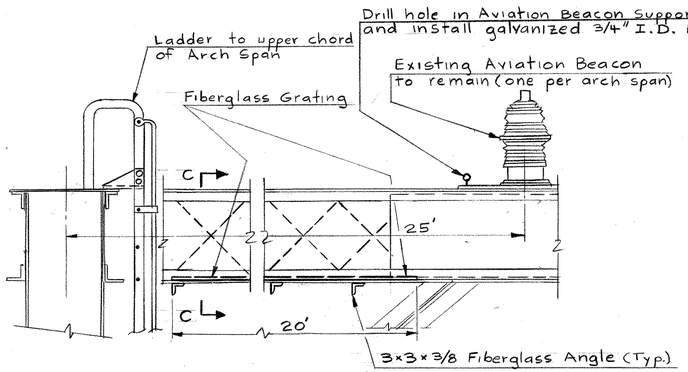


VIEW B - B

SCALE 1½" = 1'-0"

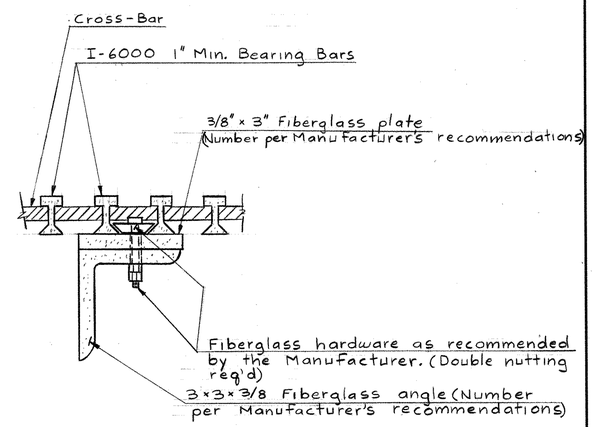
NOTES

1. The top plate of the new junction boxes shall be "checkered" to accomodate pedestrian traffic.
2. Rebars shall be ASTM A615, GR. 60.
3. The junction boxes shall have a minimum of four ¼" ϕ holes drilled in the bottom to drain out water.
4. 19 junction boxes will be replaced. For locations see Electrical Sheets.
5. 15# Max. Hammer weight for concrete removal.
6. Junction Box screws shall be "vandal-proof".
7. The work indicated shall be paid for under the item "18"x12"x18" C.I.J.B", or "Fiberglass Grating".
8. Install fiberglass grating for access to Aviation Beacons on Arch Spans (Spans 10 & 11) after painting.



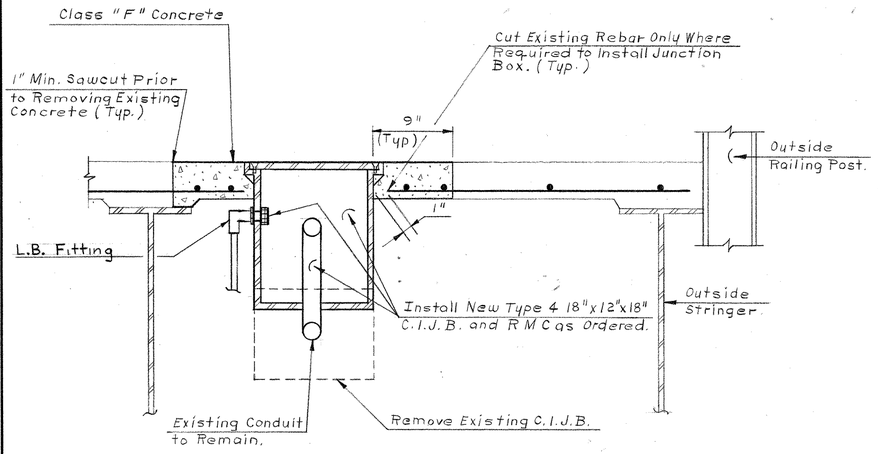
INSTALLATION OF FIBERGLASS GRATING

Scale: ½" = 1'-0"



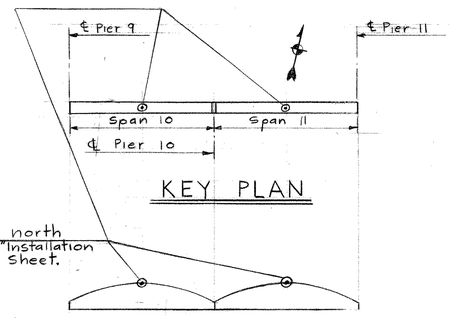
SECTION D-D

(HALF-SCALE)



SECTION A - A

SCALE 1½" = 1'-0"

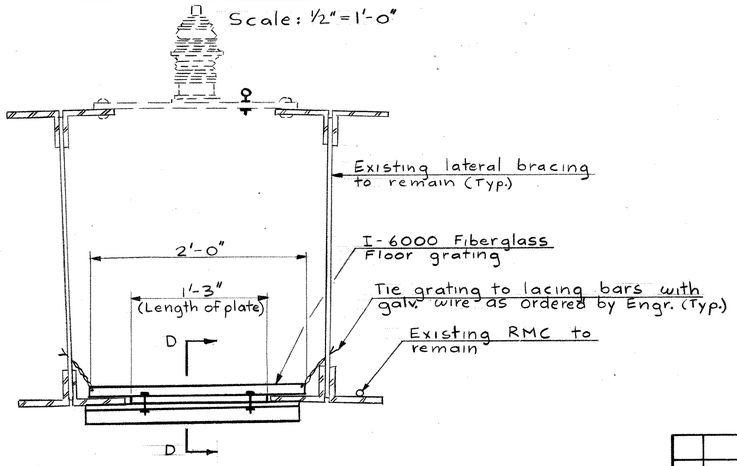


KEY PLAN

Install Fiberglass Grating north of Aviation Beacons, see "Installation of Fiberglass Grating", this Sheet.

KEY ELEVATION

Scale: 1" = 300'



SECTION C-C

Scale: 1½" = 1'-0"

THIS SHEET ADDED DECEMBER, 1994

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MIDDLETOWN - PORTLAND

PAINTING OF
ARRIGONI BRIDGE
ROUTE 66 OVER THE CONNECTICUT RIVER

ELEC. JUNC. BOX REPLACEMENTS & F.G. GRATING

NO.	DATE	DESCRIPTION

REVISIONS

ENGINEER BRIDGE DESIGN UNIT
DESIGNER R.D.D. DRAFTER RB CHECKER RDD
APPROVED DATE 12/5/94
STRUCTURE NO. BRIDGE LOG NO. 00524 STRUCTURE SHEET NO. 1 OF 1

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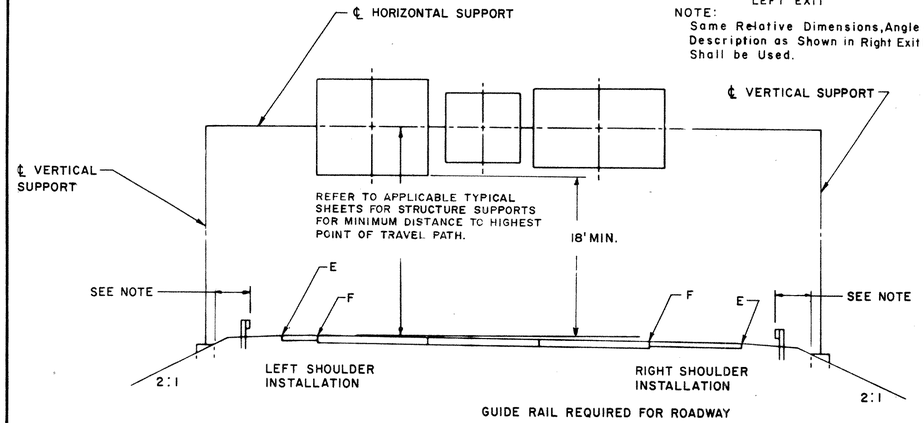
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN, PORTLAND	BHF-22(132)	82-252	1993	66	19	22

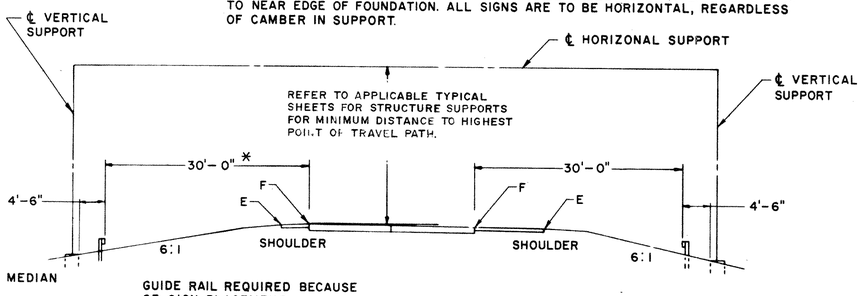
PAINTING OF ARRIGONI BRIDGE CARRYING ROUTE 66 OVER THE CONNECTICUT RIVER



GUIDE RAIL REQUIRED FOR ROADWAY

NOTES:

VERTICAL SUPPORTS BEHIND METAL BEAM TYPE RAIL 8'-6" MIN. TO NEAR EDGE OF FOUNDATION. VERTICAL SUPPORTS BEHIND THREE CABLE GUIDE RAILING 13'-6" MIN. TO NEAR EDGE OF FOUNDATION. ALL SIGNS ARE TO BE HORIZONTAL, REGARDLESS OF CAMBER IN SUPPORT.



GUIDE RAIL REQUIRED BECAUSE OF SIGN PLACEMENT

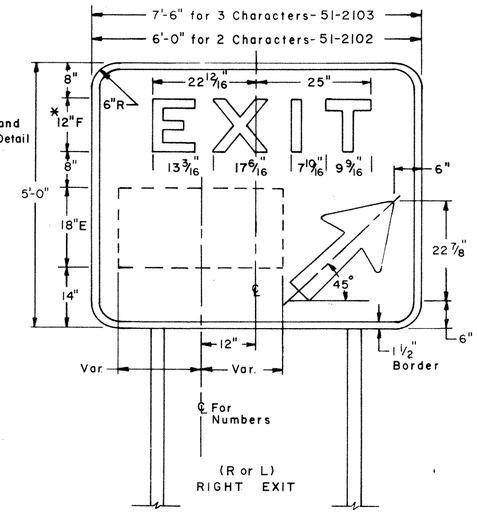
NOTES:

* IF MEDIAN WIDTH DOES NOT PERMIT DIMENSION SHOWN SIGN FOUNDATION IS TO BE IN CENTER OF MEDIAN.

FOR PLACEMENT OF CANTILEVER SIGN SUPPORT USE APPLICABLE PORTION OF ABOVE DETAILS.

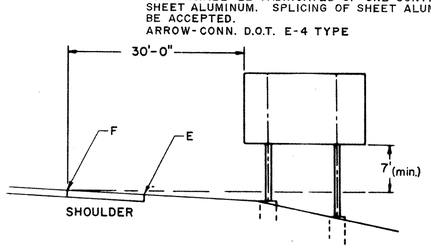
E5-1a
LEFT EXIT

NOTE:
Same Relative Dimensions, Angle and Description as Shown in Right Exit Detail Shall be Used.



GORE EXIT SIGN
(WITH EXIT NUMBER)

SIGN PANEL - .125 Thk. Sheet Aluminum
COPY, ARROW & BORDER - Silver Reflectorized - Enclosed Lens.
BACKGROUND - Green Reflectorized - Enclosed Lens.
* Double Spaced
SIGN SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF SHEET ALUMINUM. SPLICING OF SHEET ALUMINUM WILL NOT BE ACCEPTED.
ARROW - CONN. D.O.T. E-4 TYPE



TYPICAL DIRECTIONAL SIGN PLACEMENT

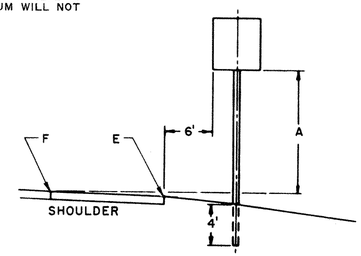
NOTES:

MIN. VERTICAL CLEARANCE ABOVE SIDEWALKS SHALL BE 8'-6".

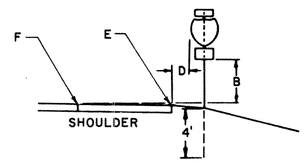
WHERE RAILING IS USED, THE OFFSET TO THE NEAR EDGE OF SIGN FACE SHALL BE AS FOLLOWS:
METAL BEAM RAIL - 8'-6"
CABLE GUIDE RAILING - 13'-6"

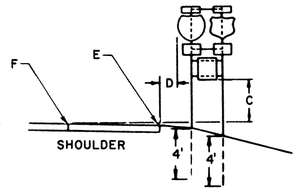
ON INTERSECTING ROADS AT RAMP TERMINI - 6' FROM POINT "E"

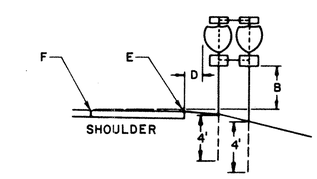
ON CUT SLOPES MAINTAIN A 6'-0" MINIMUM GROUND CLEARANCE AT RIGHT SUPPORT, EXCEPT WHERE HEIGHT OF SIGN ABOVE TRAVELWAY EXCEEDS 12'-0". SIGN TO BE HORIZONTAL.

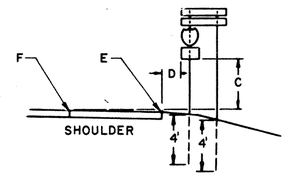


TYPICAL REGULATORY & WARNING SIGN PLACEMENT







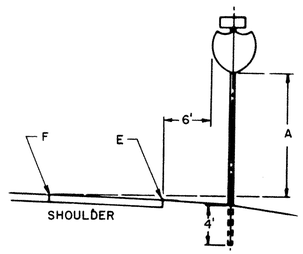


TYPICAL ROUTE MARKER DIRECTIONAL ASSEMBLIES
(NON-EXPRESSWAY)

ALL SIGNS AND SHIELDS ON DIRECTIONAL ASSEMBLIES SHALL ABUT VERTICALLY

DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D" *	ASSEMBLY LOCATION
6'	5'	5'	5'	RURAL DISTRICTS & EXPRESSWAYS
7'	7'	6'	1'	BUSINESS AND RESIDENTAL DISTRICTS - WHERE PARKING OR OTHER OBSTUCTIONS LIMIT VISIBILITY

* OR AS DIRECTED BY THE ENGINEER



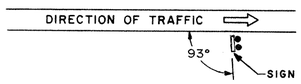
TYPICAL CONFIRMATORY ROUTE MARKER PLACEMENT

NOTE:
8'-6" Min. Vert. Clearance for any Signs Located over Sidewalks.

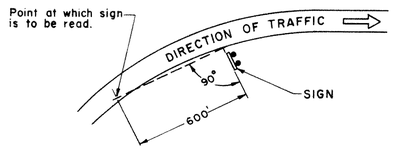
"E" DENOTES EDGE OF SHOULDER OR FACE OF CURB.
"F" DENOTES EDGE OF TRAVELWAY.

ERECTION NOTE: FOR MAXIMUM EFFECTIVENESS AND TO ELIMINATE OR MINIMIZE SPECULAR GLARE, POSITION SIGNS AS FOLLOWS:

A. On tangent section, position the sign such that the vertical axis is plumb and the horizontal axis is at an angle of 93° with the traffic lane which the sign serves: See diagram.



B. On horizonal curve section, position the sign so the vertcal axis is plumb and the horizontal axis is at an angle of 90° with a straight line between the sign and the point at which the sign is to be read.



REVISIONS		
NO	DATE	DESCRIPTION
1	10-86	REV. NOTE MIN. DIST. TO HIGHEST PT. TRAV. PATH
2	11-87	REVISE NOTES FOR GORE EXIT SIGN.
3	9-90	REVISE GORE EXIT NOTES & ANGLE OF SIDE MTD. SIGN.

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
DIVISION OF TRAFFIC

TYPICAL SIGN SUPPORT AND SIGN PLACEMENT DETAILS
GORE EXIT SIGN

SUBMITTED BY John Varrani ENG. OF TRAFFIC DATE 2/27/84
SUBMITTED BY Emmy Wallace ENG. OF TRAFFIC DATE 2/29/84
APPROVED Frank J. Mick CHIEF OF TRAFFIC ENGINEERING DATE 2/29/84

SCALE NONE

8

82-252

621-07

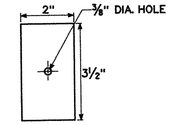
19

F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN, PORTLAND	BHF-22(132)	82-252	1993	66	20	22

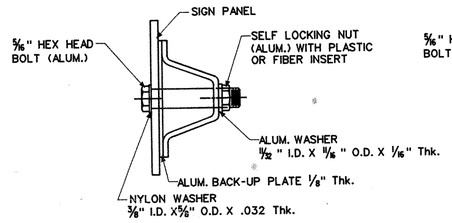
PAINTING OF ARRIGONI BRIDGE CARRYING ROUTE 66 OVER THE CONNECTICUT RIVER

TYPE "A" POSTS
3 #/FOOT "U" CHANNELS.

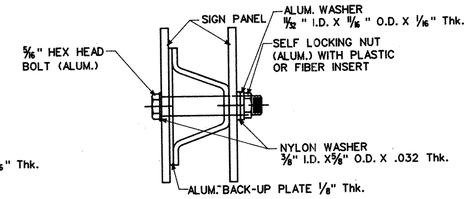
TYPE "B" POSTS
4 #/FOOT "U" CHANNELS WITH BREAKAWAY FEATURES.



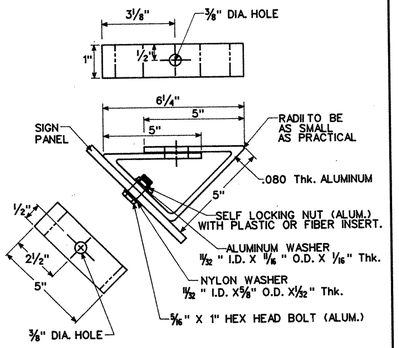
TYPICAL BACK-UP PLATE



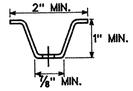
TYPICAL SIGN PANEL ATTACHMENT



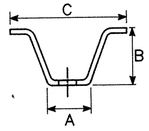
TYPICAL BACK TO BACK SIGN PANEL ATTACHMENT



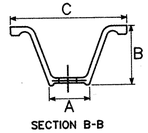
45° SUBMOUNTING BRACKET



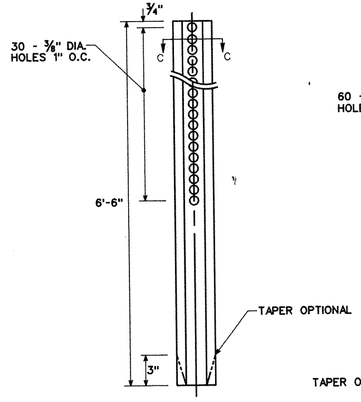
SECTION C-C



SECTION A-A

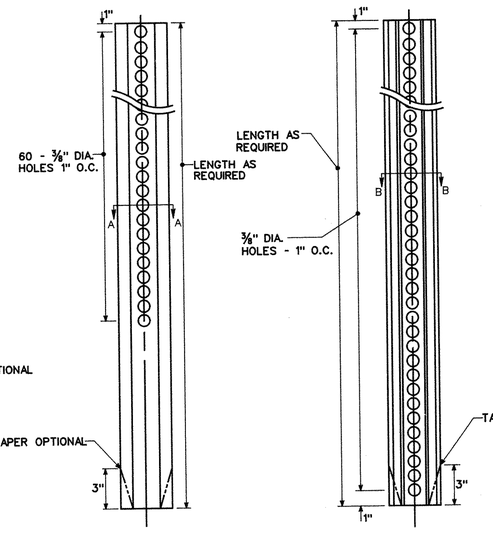


SECTION B-B



METAL DELINEATOR POST

WT./FT. = 1.12 lbs. MIN.



TYPICAL METAL SIGN POSTS

WT.	A	B	C
3lbs or 3lbs	1 5/16"	1 3/4"	3 1/2"
4lbs	1 5/8"	1 3/4"	3 1/2"

NOTES:
1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEELTEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.
3. AT THOSE LOCATIONS WHERE TWO U-SHAPED POSTS WEIGHING 4 LBS. PER FT. ARE LESS THAN 7' APART, THOSE POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS-1985." THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS

REVISIONS		
NO.	DATE	DESCRIPTION
1	6/91	ADDED SQ. TUBULAR POSTS.
2	2/93	DATA LABEL INFO REMOVED. SQ. TUBULAR POST INFO REMOVED.

TRAFFIC ENGINEERING	NAME	DATE
DESIGN BY	JTW	6/91
DRAWN BY	DKS	6/91
CHECKED BY		

BERNOULLI-STANDARD SHEETS
rev. 2/23/93 H:\STANDARD\STANDS9.DGN

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
OFFICE OF TRAFFIC ENGINEERING

TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS

SUBMITTED BY Vincent Avino, ENG OF TRAFFIC — DATE 6/27/91
APPROVED Leonard J. Whitlock, ASST. DIR. OF TRAFFIC ENGINEERING — DATE 6/28/91

SCALE NONE — ORIGINAL SIGNED — 9

82-252

621-07

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN, PORTLAND	BHF-22(132)	82-252	1993	66	21	22

PAINTING OF ARRIGONI BRIDGE CARRYING ROUTE 66 OVER THE CONNECTICUT RIVER

W1 SERIES

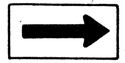
W1-1L

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3011	1
(E)	48	80-2031	2

W1-1R

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3010	1
(E)	48	80-2030	2

W1-6



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36 X 18	80-1410	1
(E)	48 X 24	80-1409	2

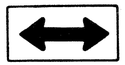
W1-2L

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3013	1
(E)	48	80-2033	2

W1-2R

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3012	1
(E)	48	80-2032	2

W1-7



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(E)	48 X 24	80-1408	2

W1-4L

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3022	1
(E)	48	80-2020	2

W1-4R

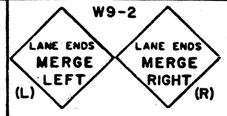
	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3021	1
(E)	48	80-2019	2

W1-8

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(A)	12 X 18	80-4202	1

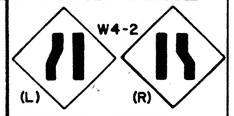
W4 - W9 SERIES

W9-2



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(L)(E)	48	80-2010	2
(R)(E)	48	80-2011	2

W4-2



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(LXE)	48	80-2028	2
(RXE)	48	80-2027	2

W6-3

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(E)	48	80-2015	2

W13 SERIES

W13-1

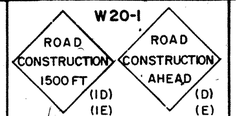
	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(A)	18 X 18	80-3016	1
(B)	24 X 24	80-2022	1

REDUCE SPEED TO 00 MPH

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
	36	80-3006	1
	48	80-2008	2

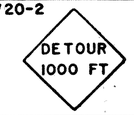
W20 SERIES

W20-1



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(ID)	36	80-9813	1
(D)	36	80-3001	1
(IE)	48	80-9814	2
(E)	48	80-2005	2

W20-2



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3002	1
(E)	48	80-2006	2

W20-4

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3004	1
(E)	48	80-2007	2

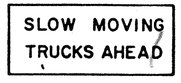
W20-7a

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-9803	1
(E)	48	80-9804	2

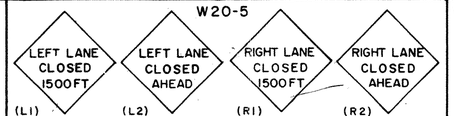
CROSSOVER 1000 FT AHEAD

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48	80-2017	2

SLOW MOVING TRUCKS AHEAD

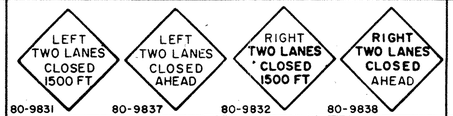


W20-5



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(L1)	48	80-9841	2
(L2)	48	80-9847	2
(R1)	48	80-9842	2
(R2)	48	80-9848	2

W20-6



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48		2
48		2

(A) AHEAD
(B) 1/2 MILE
(C) 1 MILE

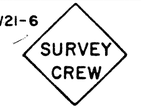
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
30 X 8	80-6102	

W21 SERIES

W21-4

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(C)	30	80-9602	1
(D)	36	80-9603	1
(E)	48	80-9604	2

W21-6



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
36	80-3007	1

W3, W8 SERIES

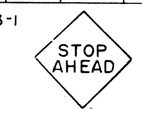
W8-1

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-9901	1
(E)	48	80-9902	2

BUMP AHEAD

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
	36	80-9801	1
	48	80-9802	2

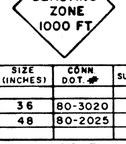
W3-1



	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-9808	1

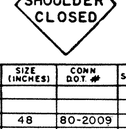
W22 SERIES

W22-1



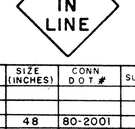
	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36	80-3020	1
(E)	48	80-2025	2

SHOULDER CLOSED



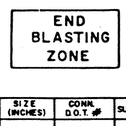
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48	80-2009	2

STAY IN LINE



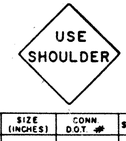
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48	80-2001	2

W22-3



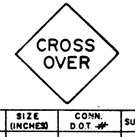
	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36 X 30	80-1422	2
(E)	42 X 36	80-1421	2

USE SHOULDER



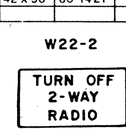
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48	80-2026	2

CROSS OVER



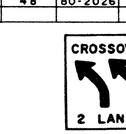
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48	80-2004	2

W22-2



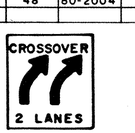
	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(D)	36 X 30	80-1424	2
(E)	42 X 36	80-1423	2

CROSSOVER 2 LANES



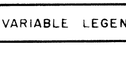
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60X66	80-1426	2-TYPE B

CROSSOVER 2 LANES



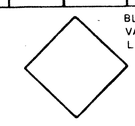
SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60X66	80-1427	2-TYPE B

(VARIABLE LEGEND)



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60 x 10	80-9913	
96 x 18	80-1414	

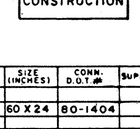
BLANK OR VARIABLE LEGEND



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
36	80-3014	1
48	80-2014	2

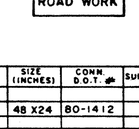
G20 SERIES

G20-2



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60 X 24	80-1404	2

G20-2a



SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48 X 24	80-1412	2

ROAD CONSTRUCTION NEXT 0 MI BE PREPARED TO STOP

NOTE:
THIS SIGN SHALL BE FABRICATED WITH BATTENS

CONN. D.O.T. #	SIZE (INCHES)	SUPPORT
80-1428	120 X 108	BREAKAWAY

WORK AREA BE PREPARED TO STOP

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
36	80-3019	1
48	80-2012	2

NEXT 0 MILES

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
72X14	80-1420	

M4 SERIES

M4-10

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(R)	48 X 18	80-1401	2
(L)	48 X 18	80-1402	2

M4-8

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
24 X 12	80-1407	

R1-R4 SERIES

R1-1

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(B)	30	31-0002	1
(D)	48	31-0024	2

R4-7

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(B)	24 X 30	31-0526	1

R11 SERIES

COPY & BORDER - BLACK PLAIN
BACKGROUND - SILVER REFLECTORIZED

R11-2

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48 X 30	80-0280	2

R11-3a

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60X30	80-0277	2

R11-3b

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60X30	80-0278	2

R11-4

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
48X30	80-0282	2

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
60X30	80-0281	2

E5 SERIES

COPY & BORDER - SILVER REFLECT.
BACKGROUND - GREEN REFLECT.

E5-1

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(L)	72 X 60	51-1755 L	2-TYPE B
(R)	72 X 60	51-1755 R	2-TYPE B

R1-SERIES

R1-2

AREA S.F.
(2) 3.90
(4) 10.83

BACKGOUND SILVER
LEGEND RED

	SIZE (INCHES)	CONN. D.O.T. #	SUPPORT *
(2)	36	31-0215	1
(4)	60	31-0267	2

STOP-SLOW PADDLE

BACKGROUND - RED
COPY & BORDER - SILVER

BACKGROUND - ORANGE
COPY & BORDER - BLACK PLAIN

SIZE (INCHES)	CONN. D.O.T. #	SUPPORT
19	80-9950	HANDLE

NOTES:
* SUPPORTS NOTED ARE FOR LONG TERM INSTALLATION (SEE STD. SHEET "TYPICAL SIGN POSTS & SIGN MOUNTING DETAILS")
FOR TEMPORARY SUPPORTS SEE STD. SHEET "TYPICAL CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES."

FOR SPECIFIC SIGN DESIGN, CONTACT CONN. D.O.T. TRAFFIC DIVISION
FOR BOLT HOLE PATTERN REFER TO F.H.W.A. PUBLICATION "STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE M.U.T.C.D. 1988."

SIGNS OF DIFFERENT DIMENSIONS TO BE ERECTED ON THE SAME SUPPORTS MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.

WHERE (0-00) SHOWN ON SIGN - INDICATES VARIABLE NUMBER(S) LEGEND.

COLORS OF SIGNS (UNLESS OTHERWISE SPECIFIED)
LEGEND - BLACK PLAIN
BACKGROUND - ORANGE REFLECTORIZED.

COLOR & MATERIALS SHALL CONFORM TO STATE SPECIFICATIONS.

MATERIALS:
ALUMINUM THICKNESS FOR ALL SIGNS SHALL BE .100 EXCEPT SIGNS NOS. 80-1415, 80-1426, 80-1427, 80-1428 & E5-1 WHICH SHALL BE .125.
PLYWOOD THICKNESS 1/2" EXTERIOR GRADE A-C OR BETTER, SIGN BLANKS SHALL HAVE ONE COAT OF PRIMER PAINT PRIOR TO APPLICATION OF REFLECTORIZATION AND COPY.

ON R1-SERIES SIGN THE LEGEND "S.T.C." SHALL APPEAR.

SUPPORTS - TYPE A (EXCEPT WHERE NOTED)

NO.	DATE	DESCRIPTION
1	6-83	W20-1 DESIG. REVISED
2	4-84	ADD 2, W8 SERIES SIGNS
3	5-84	ADDED W3-1 SIGN
4	2-85	REMOVE SUB PANELS FOR W8-3 & R4-7.
5	3-87	REVISE NOTE-SIGN DESIGN ADD 80-9913
6	2-89	ADD 80-9950 SIGN
7	8-90	ADD "YIELD" SIGNS
8	11-90	REVISED SUPPORT TYPES

INITIAL	DATE
M.W.C	2-83
J.J.O.	2-83
DESIGNED BY	
DRAWN BY	
CHECKED BY	

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
DIVISION OF TRAFFIC

SIGNS FOR
CONSTRUCTION
AND PERMIT OPERATIONS

SUBMITTED BY _____ ENG. OF TRAFFIC DATE 4-8-93
SUBMITTED BY _____ ENG. OF TRAFFIC DATE _____
APPROVED _____ CHIEF OF TRAFFIC ENGINEERING DATE 4-12-93

SCALE NONE

23

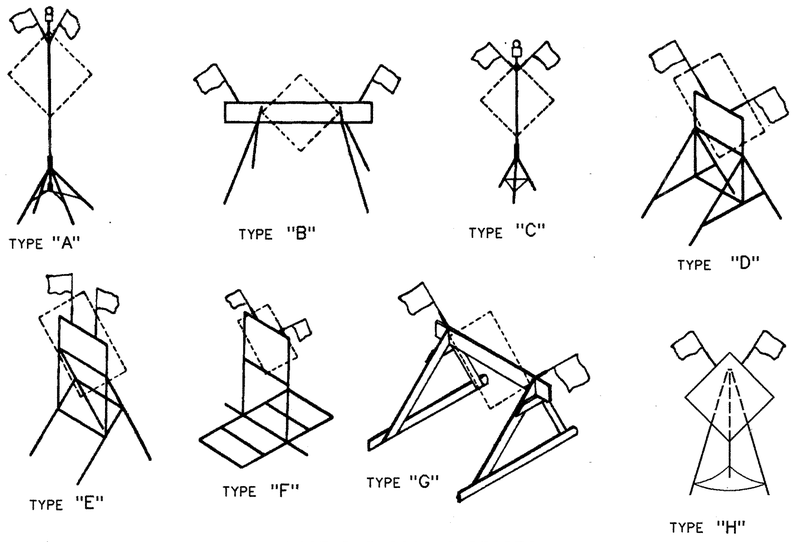
82-252

62107

21

PAINTING OF ARRIGONI BRIDGE CARRYING ROUTE 66 OVER THE CONNECTICUT RIVER

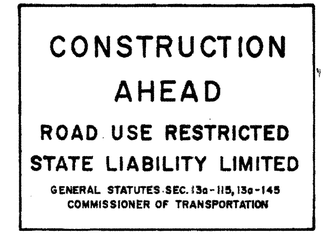
F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	MIDDLETOWN PORTLAND	BHF-22(132)	82-252	1993	66	22	22



PORTABLE SIGN SUPPORTS

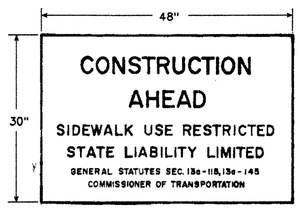
NOTES:

1. SIGN SUPPORTS SHALL BE CONSTRUCTED OF A SUITABLE MATERIAL. BREAK-AWAY AND/OR COLLAPSIBLE FEATURES SHALL BE INCORPORATED IN THE DESIGN SO THAT THE SUPPORT WILL NOT CONSTITUTE A HAZARD TO THE MOTORIST AND/OR WORKERS IN THE WORK AREA.
2. MOUNTING HEIGHT OF SIGN UTILIZING STRUCTURES DEPICTED ABOVE SHALL BE A MINIUM OF 12", WITH A RECOMMENDED HEIGHT OF 18" ABOVE PAVEMENT.
3. WHEN CALLED FOR ON THE PLANS OR DIRECTED BY THE ENGINEER, THE MOUNTING HEIGHT OF SIGNS ON PORTABLE SUPPORTS SHALL BE NOT LESS THAN 4' ABOVE THE PAVEMENT.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED A HAZARD OR NOT IN THE BEST INTEREST OF THE MOTORING PUBLIC.
5. FLAGS AND/OR BARRICADE WARNING LIGHTS SHALL BE USED AS SHOWN ON THE TRAFFIC CONTROL PLANS AND AS DIRECTED BY THE ENGINEER.
6. PORTABLE SIGN SUPPORTS SHALL BE STABILIZED WITH THE USE OF SANDBAGS OR OTHER APPROVED MEANS.



16-E, 16-H, 16-M

	HORIZ.	VERT.
16-E	84"	60"
16-H	60"	42"
16-M	30"	24"

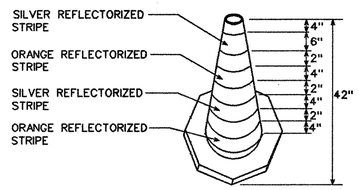


16-S

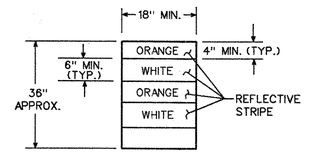
SERIES 16 SIGNS

NOTES:

1. SIGN COLORS:
   BACKGROUND-ORANGE REFLECTORIZED ENCAPSULATED LENS
   LEGEND-BLACK PLAIN
2. FOR SPECIFIC SIGN DESIGN REFER TO CONN. DEPT. OF TRANS. TRAFFIC DIVISION'S DETAILED DRAWINGS.
3. 16-E, 16-H AND 16-S SIGNS ARE TO BE ERECTED ON TWO 3 LB. BREAK-AWAY SIGN POSTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.



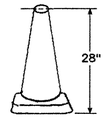
42" TRAFFIC CONE



TRAFFIC DRUM
FRONT VIEW

NOTES:

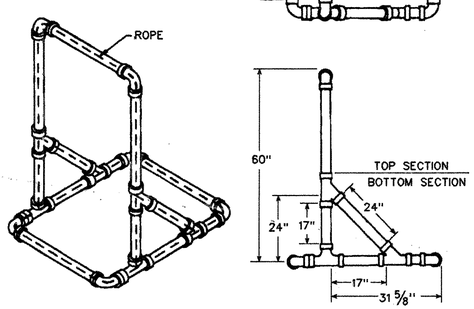
1. TRAFFIC DRUM SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION M.U.T.C.D.
2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR FOR THE PURPOSE INTENDED, AS REQUIRED IN THE SPECIFICATIONS.
3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE REFLECTIVE SHEETING.
4. REFLECTORIZED STRIPES SHOULD NOT BE PLACED OVER THE PROTRUDING CIRCUMFERENCIAL RIBS OF DRUMS.
5. THE SECTIONS OF DRUMS NOT COVERED WITH REFLECTORIZED STRIPES SHALL BE ORANGE.
6. THE DESIGN OF THE DRUM WILL ALLOW FOR THE ATTACHMENT OF A BARRICADE WARNING LIGHT.



28" TRAFFIC CONE

NOTES:

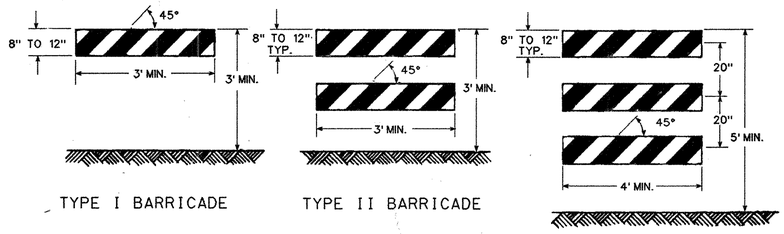
1. TRAFFIC CONES SHALL BE DESIGNED IN ACCORDANCE WITH THE M.U.T.C.D., CHAPTER VI, SECTION 6C-3, CONE DESIGN.
2. CONES SHALL BE PREDOMINATELY FEDERAL ORANGE IN COLOR AND REFLECTORIZED AS REQUIRED IN THE SPECIFICATIONS.
3. RUBBER CONES SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
4. PLASTIC CONES SHALL BE COLOR IMPREGNATED.
5. CONES SHALL BE OF A THICKNESS NECESSARY TO WITHSTAND IMPACT WITHOUT DAMAGE TO EITHER CONE OR IMPACTING VEHICLE.
6. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.



TYPICAL 3" OR 4" PLASTIC SIGN/BARRICADE SUPPORT

NOTES:

1. DIMENSIONS ARE APPROXIMATE.
2. BOTTOM SECTION MAY BE FILLED WITH SAND FOR BALLAST.
3. SUPPORT SHALL BE LOOSELY THREADED WITH ROPE, KNOTTED AS REQUIRED.

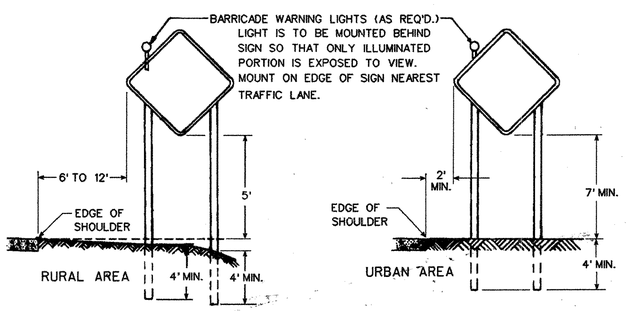


TYPE I BARRICADE TYPE II BARRICADE TYPE III BARRICADE

CONSTRUCTION BARRICADES

NOTES:

1. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
2. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE REFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. RAILS FOR TYPE I AND TYPE II BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. WHERE TRAFFIC PASSES ONLY IN ONE DIRECTION OF TRAVEL. ONLY THE SIDE FACING TRAFFIC SHALL BE REFLECTORIZED.
3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED A HAZARD, OR NOT IN THE BEST INTEREST OF THE MOTORING PUBLIC.
4. CORNERS OF ALUMINUM BARRICADE RAILS SHALL BE ROUNDED.



PLACEMENT OF ROADSIDE SIGNS
TYPICAL LONG TERM INSTALLATION

NOTES:

SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAKAWAY FEATURES. SEE TYPICAL SHEETS:
"TYPICAL SIGN SUPPORT AND SIGN PLACEMENT DETAILS"
"TYPICAL METAL SIGN POSTS FOR SIGN FACE SHEET ALUMINUM"

REVISIONS		
NO.	DATE	DESCRIPTION

CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUR. OF ENGINEERING & HWY. OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

TYPICAL CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES

SUBMITTED BY Vincent Avino ENGINEER OF TRAFFIC DATE 1/13/93
APPROVED Walter H. Bouffard MANAGER OF TRAFFIC ENGINEERING DATE 1/13/93
SCALE NONE 23A

82-252

621-07

22