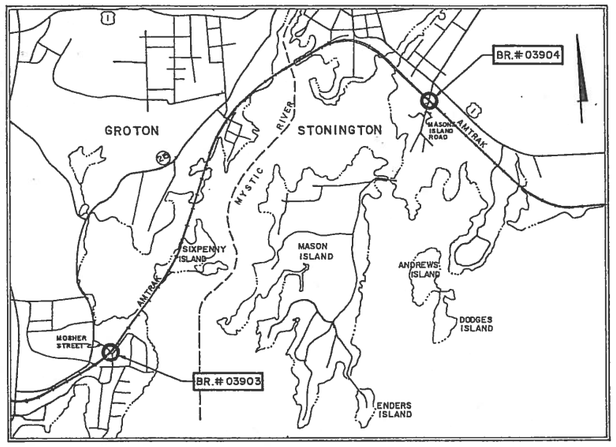
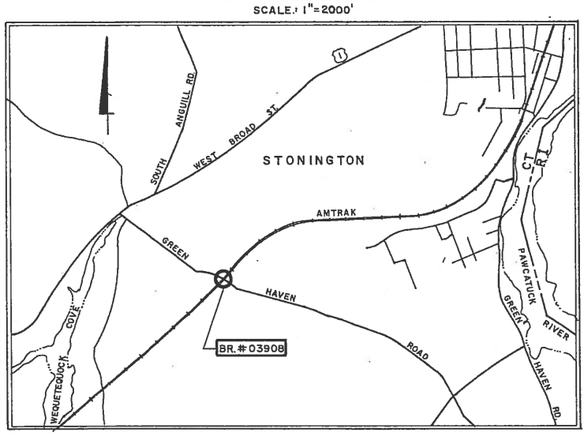
STATE OF CONNECTICUT DEPT. OF TRANSPORTATION FORM NO. ENG & ED 246

F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	GROTON & STONINGTON	BHZ 000S(404)	172-203	1991	—	1	47



LOCATION MAP

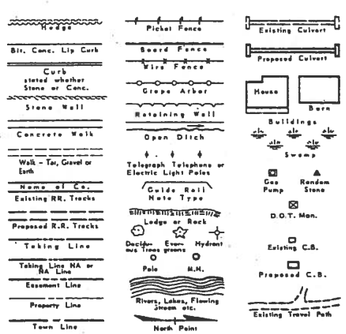
SCALE: 1"=2000'



LOCATION MAP

SCALE: 1"=2000'

STANDARD CONVENTIONS



CONNECTICUT DEPARTMENT OF TRANSPORTATION PLAN

FOR

REHABILITATION OF MOSHER STREET BRIDGE OVER AMTRAK

REHABILITATION OF MASONS ISLAND ROAD BRIDGE OVER AMTRAK

REHABILITATION OF GREEN HAVEN ROAD BRIDGE OVER AMTRAK

IN THE TOWNS OF

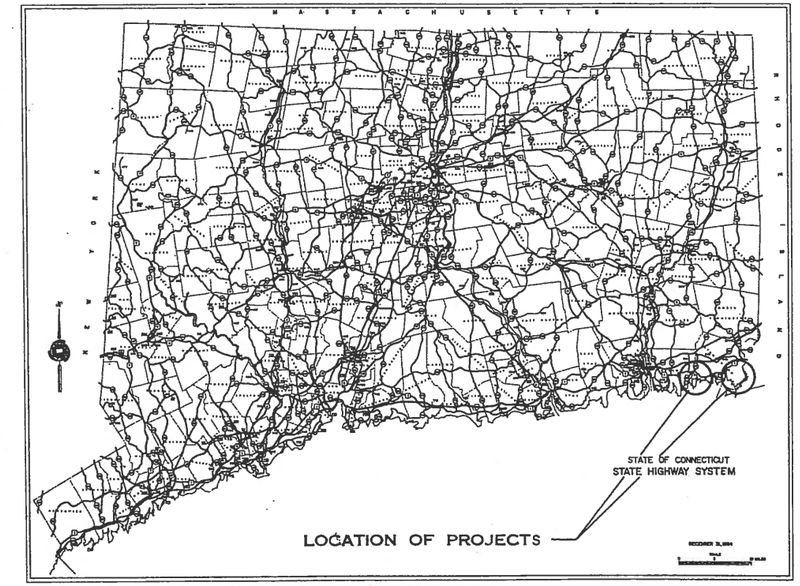
GROTON AND STONINGTON

DESIGN SCALES
PLAN 1 IN. = 20 FT.
PROFILE HOR. 1 IN. = 20 FT. VERT. 1 IN. = 2 FT.
CROSS SECTIONS 1 IN. = 5 FT.

OTHER SCALES AS NOTED

STRUCTURAL ELEMENTS OF BRIDGE TO BE MAINTAINED BY THE STATE
ROADWAY APPROACHES AND BRIDGE WEARING SURFACE TO BE MAINTAINED BY THE TOWN

TOWN	BRIDGE NO.	FED AID PROJ. NO.	STATE PROJ. NO.	DESCRIPTION
GROTON	03903	BHZ 000S (404)	172-203	MOSHER STREET BRIDGE OVER AMTRAK
STONINGTON	03904	BHZ 000S (404)	172-203	MASONS ISLAND ROAD BRIDGE OVER AMTRAK
STONINGTON	03908	BHZ 000S (404)	172-203	GREEN HAVEN ROAD BRIDGE OVER AMTRAK



1988 SPECIFICATIONS, FORM NO. 814 INCLUDING SUPPLEMENT THERETO DATED JULY 1, 1991 GOVERN ALL ELEVATIONS ON THIS PROJECT
BASED ON ASSUMED DATUM (BRIDGE # 03903 & 03904) AND NATIONAL GEODETIC VERTICAL DATUM OF 1929 (MEAN SEA LEVEL) (BRIDGE # 03908)

TOWN NO. 58, 137
PROJECT NO. 172-203

CONSTRUCTION STARTED *	DATE	AUGUST 1, 1992	
CONSTRUCTION COMPLETED *	DATE	JULY 27, 1993	
MYLARS REVISED BY	DATE	JOHN WHITTEN SEPT. 3, 1993	
FUSS AND O'NEILL	MYLARS CHECKED BY	DATE	JEFFREY KEEFE SEPT. 15, 1993

ASSUMES FULL RESPONSIBILITY FOR THE ACCURACY OF THE REVISIONS TO THE AS BUILT TRACINGS. * BRIDGE NO. 03904 DELETED FROM CONTRACT.

SEAL STATE OF CONNECTICUT JEFFREY J. KEEFE No. 12814 LICENSED PROFESSIONAL ENGINEER — SIGNATURE — DATE 9/15/93

DESIGNED BY: FUSS & O'NEILL, INC.
PER WILLIAM D. O'NEILL
CONN. PROF ENGINEER REG. NO. 6299

STATE OF CONNECTICUT WILLIAM D. O'NEILL No. 6299 LICENSED PROFESSIONAL ENGINEER

JEFFREY J. KEEFE NO. 12814

STATE OF CONNECTICUT JEFFREY J. KEEFE No. 12814 LICENSED PROFESSIONAL ENGINEER

LIST OF DRAWINGS		STANDARD SHEETS		FED. HIGHWAY ADMINISTRATION APPROVAL DATES
SHEET NO.	TITLE			
1	TITLE SHEET	507-K	CATCH BASIN FRAMES & GRATES	12-03-90
2-3	DETAILED ESTIMATE SHEETS			
4-11	MISCELLANEOUS TRAFFIC DETAILS	507-I	TYPE "C" CATCH BASIN	12-03-90
	BRIDGE NO. 03903 PLANS	507-H	PRECAST CONCRETE CATCH BASIN	12-03-90
12	DETAILS		TYPE "C" OR "C-L"	
13	PLAN	651-A	TYPICAL C.C.M. PIPE INSTALLATION IN EARTH	12-03-90
14-17	BRIDGE PLANS		& ROCK SLOPE AND BEDDING FOR CULVERTS	
		822-A	PRECAST CONCRETE MEDIAN BARRIER	8-26-91
	BRIDGE NO. 03904 PLANS		CURB FOR TEMPORARY TRAFFIC CONTROL	
18	PLAN	811-A	CURBING	10-15-86
19	SIGNAL PLAN	910-A	METAL BEAM RAIL (TYPE R-B) & (TYPE MD-B)	3-16-79
20-24	BRIDGE PLANS	816-A	GRANITE STONE TRANSITION CURBING	9-10-90
		911-B	METAL BEAM RAIL (TYPE R-B)	
	BRIDGE NO. 03908 PLANS		ATTACHMENT TO BRIDGE PARAPET	
25-26	TYPICAL SECTION AND DETAILS	921-A	SIDEWALK AND DRIVES	9-18-91
27-28	LAYOUT AND SEDIMENTATION CONTROL PLAN	911-F	END ANCHORAGES TYPE II, METAL BEAM	
29	PROFILE		RAIL TYPES R-I, MD-I, AND R-B	
30	STAGE CONSTRUCTION PLAN	910-E	METAL BEAM RAIL (TYPE R-I) TREATMENT	4-24-87
31	SIGNAL PLAN		AT LEADING END OF BRIDGE AND	
32-35	CROSS SECTIONS		AT FIXED OBJECT	
36-47	BRIDGE PLANS	930	OBJECT MARKER	8-1-91
		652-A	METAL AND R.C. CULVERT END	12-03-90
		910-C	METAL BEAM RAIL (TYPE R-I)	4-24-87
		913-A	CHAIN LINK FENCE	12-03-90

3803

REVIEWED AND RECOMMENDED FOR CONSTRUCTION
CLOSE, JENSEN, & MILLER - C.E.
DATE 4/18/91

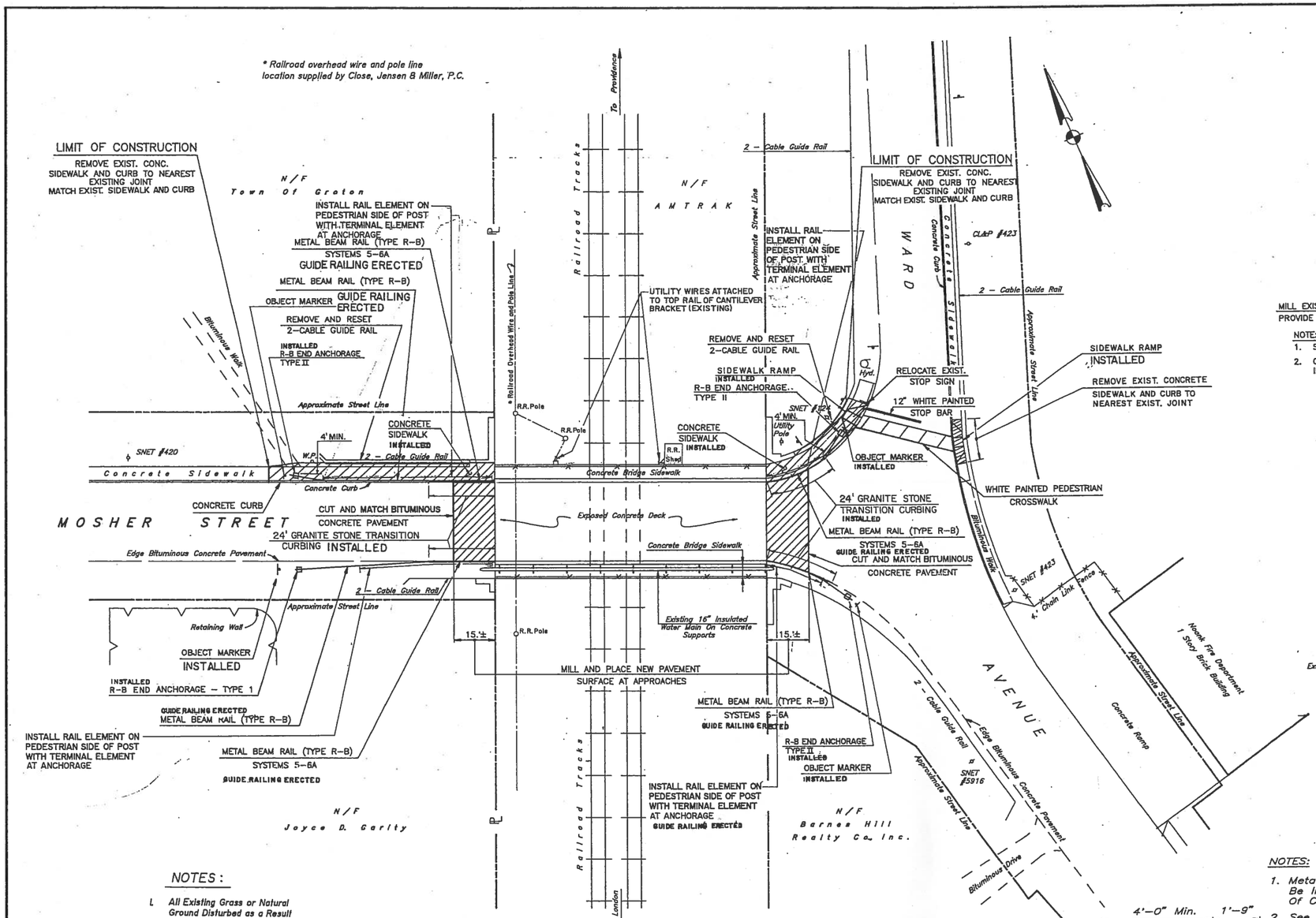
172-203

400-02

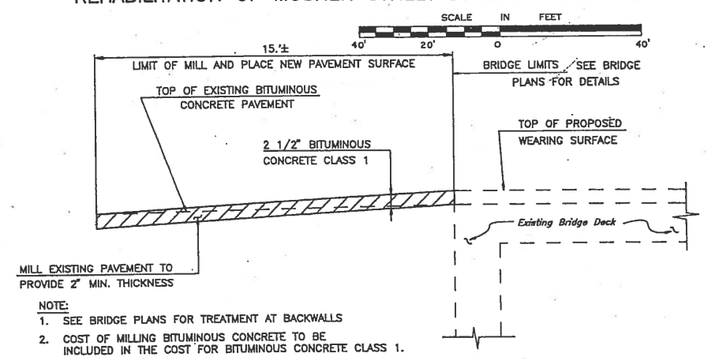
1

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	G R O T O N	BHZ000S(404)	172-203	1991	—	13	47

13



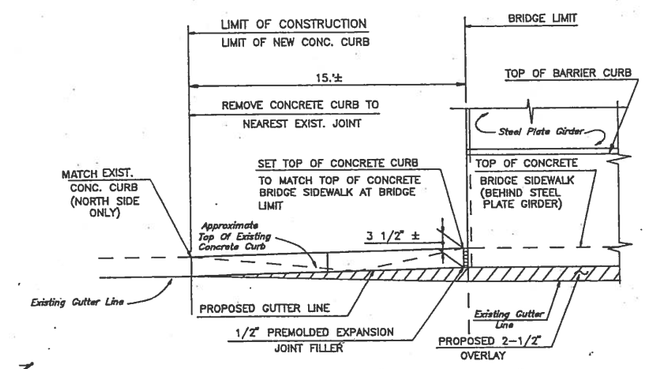
REHABILITATION OF MOSHER STREET BRIDGE OVER AMTRAK



NOTE:
1. SEE BRIDGE PLANS FOR TREATMENT AT BACKWALLS
2. COST OF MILLING BITUMINOUS CONCRETE TO BE INCLUDED IN THE COST FOR BITUMINOUS CONCRETE CLASS 1.

TYPICAL LONGITUDINAL APPROACH SECTION

N. T. S.



ELEVATION – CONCRETE CURB AT APPROACHES

N. T. S.

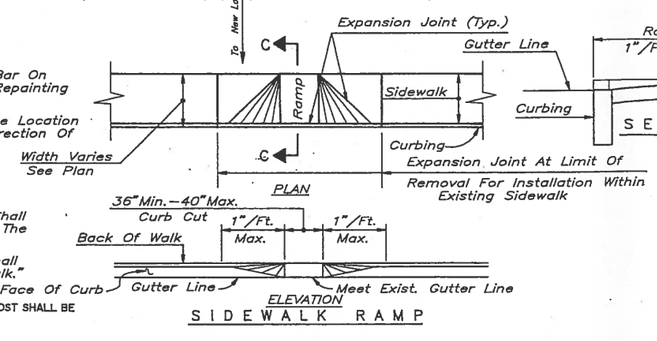
NOTES:

1. All Existing Grass or Natural Ground Disturbed as a Result of Construction Activities to be Restored by Placement of Topsoil and Turf Establishment.
2. The Existing Painted Crosswalk and Stop Bar On Ward Avenue Shall Be Removed Prior To Repainting New Crosswalk And Stop Bar.
3. Test Pits Shall Be Conducted To Verify The Location Of Existing Underground Utilities At The Direction Of The Engineer Prior To Construction. The Cost Of This Work To Be Under The Item "Test Pits"

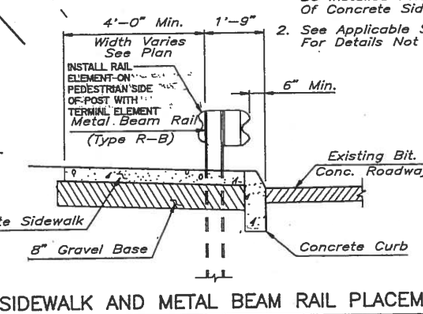
SIDEWALK NOTES:

1. The Final Texture Of The Ramp Surface Shall Be A Coarse Broom Finish Transverse To The Slope Of The Ramp.
2. The Cost OF Installing Sidewalk Ramps Shall Be Included In The Item "Concrete Sidewalk."

NOTE: THE COST OF RAIL ELEMENT ON THE PEDESTRIAN SIDE OF POST SHALL BE INCLUDED IN THE COST OF METAL BEAM RAIL TYPE R-B



SIDEWALK RAMP



NOTES:

1. Metal Beam Rail Posts To Be Installed Prior To Placement Of Concrete Sidewalk.
2. See Applicable Standard Sheets For Details Not Shown.

TYPICAL SIDEWALK AND METAL BEAM RAIL PLACEMENT DETAIL

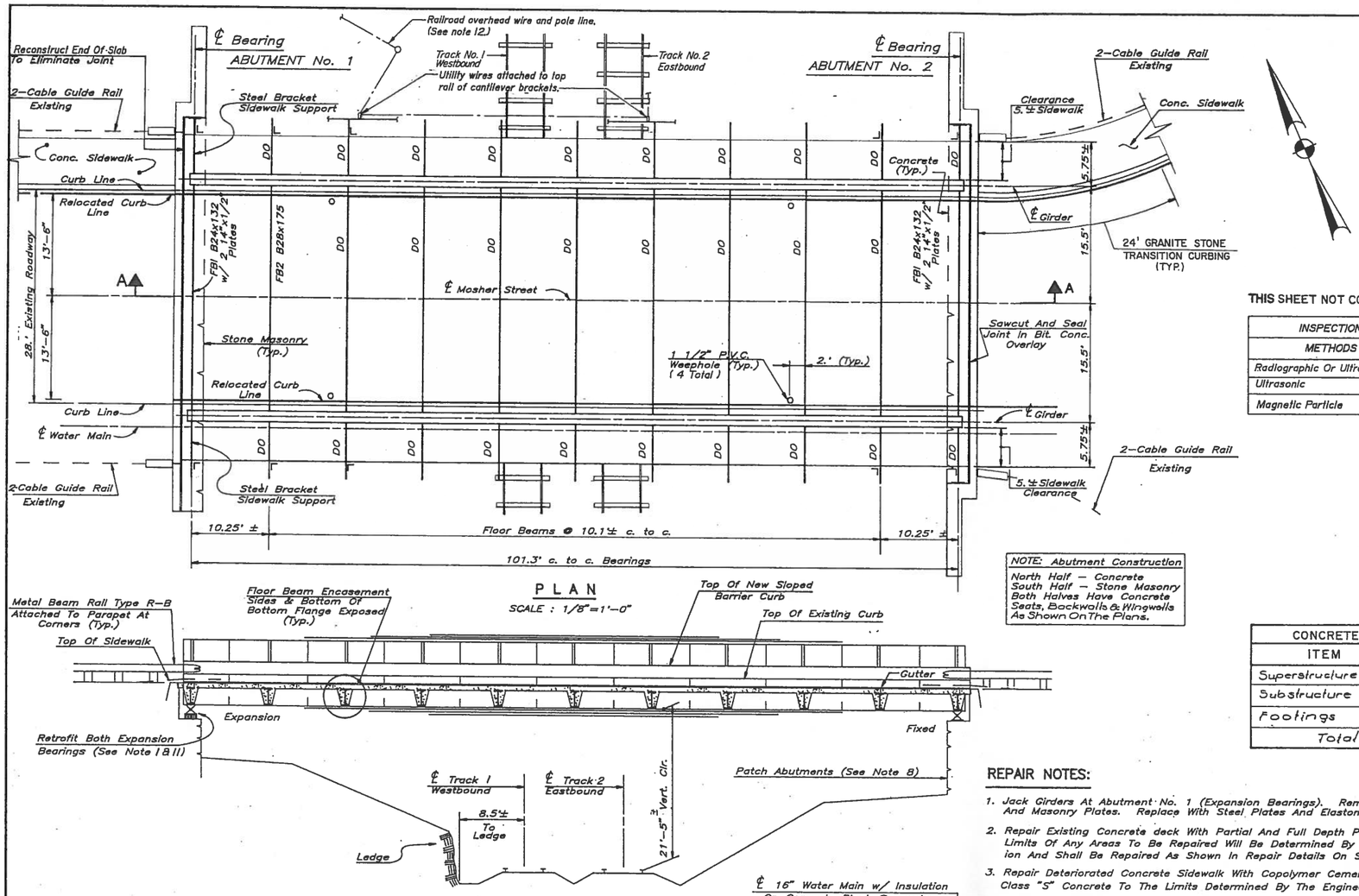
N.T.S.

REVISIONS			
NO.	DATE	DESCRIPTION	REV. SHEET NO.

PLAN				
Surveyed				
Plotted				
Traced				
Designed	MAYO	3-14-91	JK	4/16/91
Checked				
New Const. Noted	NEG	7-17-91	JK	4/16/91
Topo. Field Chk. Noted				
NOTEBOOK NO.				

172-203 400-02 13

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	G R O T O N	BHZ000S(404)	172 - 203	1991	—	14	47



PLAN

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

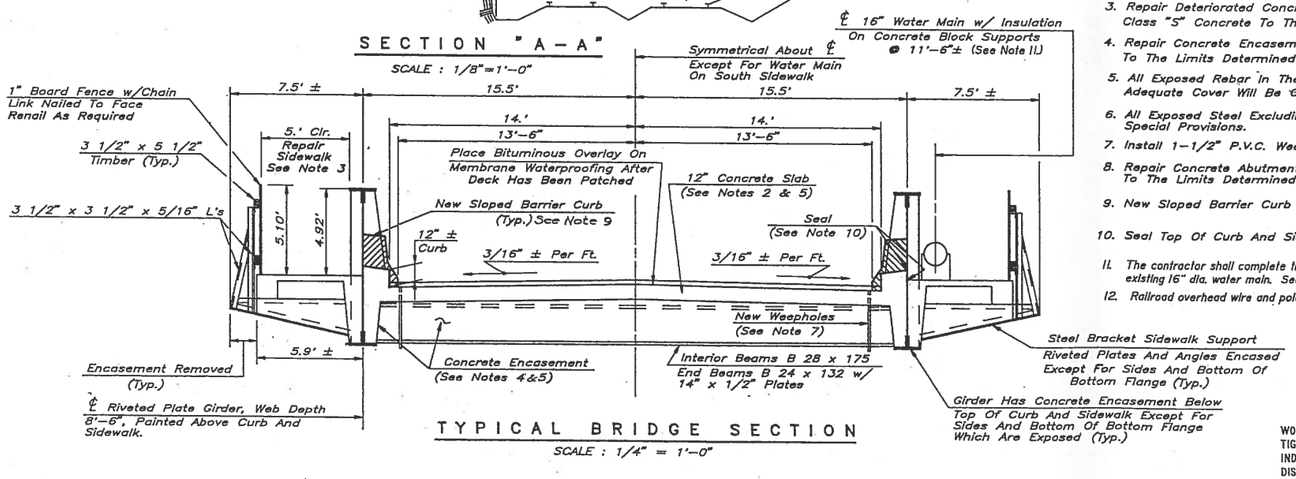
THIS SHEET NOT CORRECTED

INSPECTION OF FIELD WELDS		
METHODS	UNIT	TOTAL
Radiographic Or Ultrasonic	in.	0
Ultrasonic	in.	0
Magnetic Particle	l.f.	0

NOTE: Abutment Construction
North Half — Concrete
South Half — Stone Masonry
Both Halves Have Concrete Seats, Backwalls & Wingwalls As Shown On The Plans.

SECTION "A-A"

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



TYPICAL BRIDGE SECTION

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

CONCRETE DISTRIBUTION		
ITEM	UNIT	QUANTITY
Superstructure	C.Y.	25
Substructure	C.Y.	0
Footings	C.Y.	0
Total	C.Y.	25

REPAIR NOTES:

1. Jack Girders At Abutment No. 1 (Expansion Bearings). Remove Existing Roller Nests And Masonry Plates. Replace With Steel Plates And Elastomeric Bearing Pads.
2. Repair Existing Concrete deck With Partial And Full Depth Patch. Exact Location And Limits Of Any Areas To Be Repaired Will Be Determined By The Engineer During Construction And Shall Be Repaired As Shown In Repair Details On Structure Sheet No. 2.
3. Repair Deteriorated Concrete Sidewalk With Copolymer Cementitious Mortar Patch Or Class "S" Concrete To The Limits Determined By The Engineer During Construction.
4. Repair Concrete Encasement with Copolymer Cementitious Mortar Patch Or Class "S" Concrete To The Limits Determined By The Engineer During Construction.
5. All Exposed Rebar In The Concrete Encasement And Underside Of Deck That Does Not Have Adequate Cover Will Be Coated With Epoxy. See Special Provisions.
6. All Exposed Steel Excluding Chain Link Fence Shall Be Cleaned And Painted According To The Special Provisions.
7. Install 1-1/2" P.V.C. Weepholes As Shown On Plans.
8. Repair Concrete Abutments With Copolymer Cementitious Mortar Patch And Repoint Masonry To The Limits Determined By The Engineer During Construction.
9. New Sloped Barrier Curb Shall Be Coated With Penetrating Sealer Protective Compound.
10. Seal Top Of Curb And Sidewalk At Steel Girder Juncture With Caulking.
11. The contractor shall complete the girder jacking in a manner to eliminate any damage to the existing 16" dia. water main. See special provisions.
12. Railroad overhead wire and pole line location supplied by Close, Jensen & Miller, P.C.

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

GENERAL NOTES

SPECIFICATIONS: Connecticut Department Of Transportation Form 814 (1988), With Supplemental Specifications Up To And Including July 1, 1991, And Special Provisions.

DESIGN SPECIFICATIONS: Standard Specifications For Highway Bridges (AASHTO — 1989) With The Interim Specifications Up To And Including (1990) As Supplemented By The Connecticut Department Of Transportation Bridge Manual (1985).

JOINT SEAL: See Special Provisions.

EXPOSED EDGES: Exposed Edges Of Concrete To Be Beveled 1"x1" Unless Dimensioned Otherwise.

REINFORCEMENT: All Reinforcement Shall Be ASTM A615 Grade 60.

EPOXY COATED REINFORCING BARS: All Reinforcement Shall Be Epoxy Coated. These Bars Shall Be Included In The Pay Item For "Deformed Steel Bars (Epoxy Coated)."

PAINT: All Exposed Surfaces Of Steel (Not Encased In Concrete) Shall Be Painted. Paint Shall Conform To The Requirements Of The Special Provision, "Abrasive Blast Cleaning and Field Painting of Structure (Site No. 1)" The Color Of The Topcoat Material On The Structural Steel Shall Conform To Federal Standard Color No. 17178. (Approximately The Department's Standard Bridge Color No. 106.)

BITUMINOUS CONCRETE OVERLAY: This Shall Consist Of Two Lifts. The The First Shall Be Bituminous Concrete — Class (12) (1" Thick) On The Membrane Waterproofing And The Second Shall Be Bituminous Concrete — Class (1.) (1 1/2" Thick).

CONSTRUCTION JOINTS: Construction Joints, Other Than Those Shown On The Plans, Will Not Be Permitted Without The Prior Approval Of The Engineer.

EXISTING DIMENSIONS: Dimensions Of The Existing Structure Shown On These Plans Are For General Reference Only. They Have Been Taken From The Original Design Drawings And Are Not Guaranteed. The Contractor Shall Take All Field Measurements Necessary To Assure Proper Fit of The Finished Work And Shall Assume Full Responsibility For Their Accuracy. When Shop Drawings Based On Field Measurements Are Submitted For Approval, The Field Measurements Shall Also Be Submitted For Reference By The Reviewer.

EXISTING UTILITIES: The Contractor's Attention Is Directed To The Presence Of The Water Main On The South Sidewalk. The Contractor Shall Be Responsible For Coordination With The Owner Of The Water Main To Insure Continuous Service During All Of His Operations. Test Pits Will Be Done On Each Side Of The Bridge To Locate Existing Underground Utilities And The Work Will Be Paid Under The Item "Test Pits (Rdwy. Item)"

ALLOWABLE DESIGN STRESSES:

Class "C" and Class "S" Concrete Based on f'c = 3,000 p.s.i.
Reinforcement (ASTM A615 Grade 60) fs = 24,000 p.s.i.
Copolymer Cementitious Mortar Patch based on f'c = 5,000 p.s.i.

RIVET REMOVAL: This Item Has Been Provided to Allow Replacement of Any Rivets Found During Construction That Have Significant Section Loss In Rivet Shank as Determined by The Engineer.

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 LISTING 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 BRIDGES AND STRUCTURES, OR NOTED BELOW.

COMPONENT OR DETAIL	BR.	SH.	REF.
None			

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

G R O T O N

M O S H E R S T R E E T
O V E R
A M T R A K

GENERAL PLAN

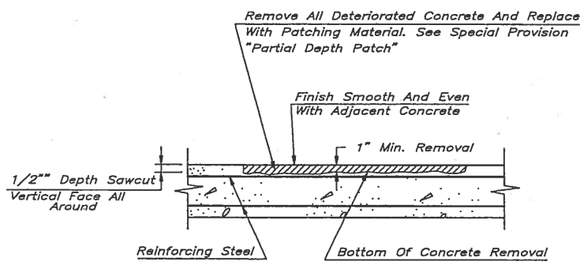
ENGINEER FUSS AND O'NEILL, INC.

DESIGNER M. Q. J. | DRAFTER M.L.M.(M.B.E.) | CHECKER R. F. C.

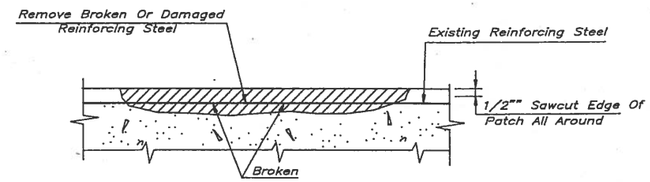
APPROVED [signature] DATE 4-15-91

STRUCTURE NO. | BRIDGE LOG NO. 3903 | STRUCTURE SHEET NO. 1 of 4

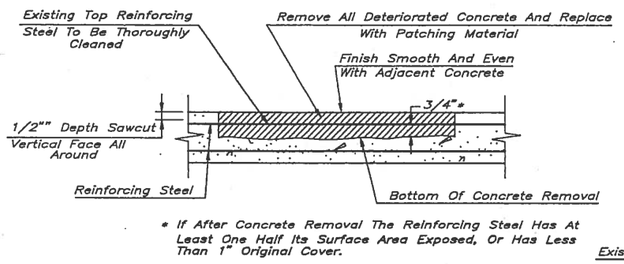
THIS SHEET NOT CORRECTED



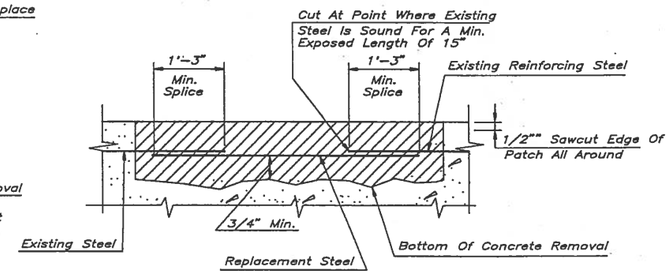
PATCH ABOVE TOP REINFORCING STEEL



SECTION OF CONCRETE REMOVAL AREA SHOWING EXISTING REINFORCING STEEL



PATCH BELOW TOP REINFORCING STEEL



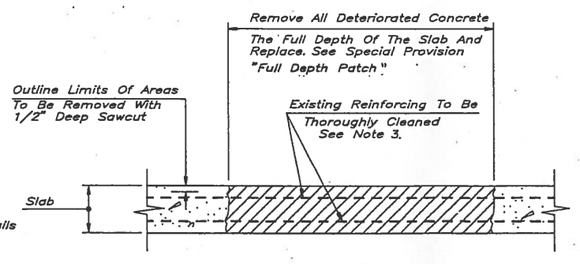
SECTION SHOWING REPAIR OF DEFORMED STEEL BARS

PARTIAL DEPTH PATCH

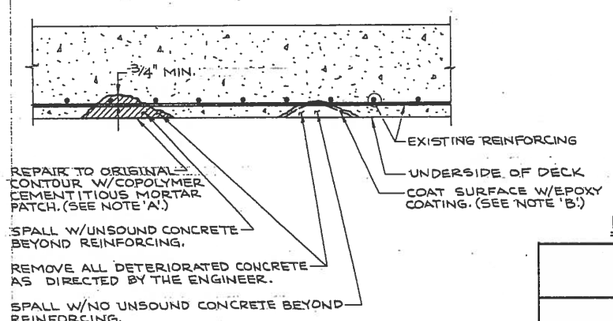
QUANTITIES		
ITEM	UNIT	QTY.
Structure Excavation — Earth (Complete)	C.Y.	6
Bituminous Concrete — Class 1	Ton	29
Bituminous Concrete — Class 12	Ton	19
Sawing And Sealing Joints	L.F.	31
Clean & Reseal Existing Filled Bridge Joints	L.F.	44
Jacking Existing Girders	Ea.	2
Polyvinyl Chloride Plastic Pipe Weepholes	Ea.	4
Bearing Replacement With Elastomeric Bearing Pads	Ea.	2
Class "C" Concrete	C.Y.	25
Class "S" Concrete	C.Y.	2
1"Preformed Expansion Joint Filler For Bridges	S.F.	10
Partial Depth Patch	Bag	15
Full Depth Patch	C.Y.	5
Copolymer Cementitious Mortar Patch	Gal.	35
Epoxy Protective Coating	S.F.	720
Caulking And Sealing Joints	L.F.	635
1" Closed Cell Elastomer	C.I.	9200
Penetrating Sealer Protective Compound	S.F.	890
Deformed Steel Bars — Epoxy Coated	Lb.	2000
Drilling And Grouting Reinforcing Bars	L.F.	70
Rivet Removal	Ea.	100
Abrasive Blast Cleaning And Field Painting Of Structure (Site No. 1)	L.S.	L.S.
Containment And Collection of Surface Preparation Debris (Site No. 1)	L.S.	L.S.
Disposal Of Debris (Contaminated)	C.Y.	1
Disposal Of Debris (Hazardous)	BBL.	1
Repointed Masonry	S.Y.	5
Membrane Waterproofing (Sheet)	S.Y.	330

DECK REPAIR NOTES:

1. Cost Of 1/2" Depth Sawcut Shall Be Included In The Contract Bid Price For "Partial Depth Patch" And "Full Depth Patch."
2. If Removal Of Deteriorated Concrete Causes Popouts On The Underside Of The Deck Which Do Not Extend Beyond The Bottom Layer Of Reinforcing Steel These Popouts Shall Be Coated With An Epoxy Coating. If The Popouts Extend Beyond The Bottom Layer Of Reinforcing Steel They Shall Be Repaired As Ordered By The Engineer And This Work Shall Be Included In The Item "Partial Depth Patch." Made In Accordance With The Special Provisions And The Details
3. Where Existing Reinforcing Steel Is Not Sound, Repairs Shall Be As Shown On This Sheet.
4. Concrete Used For Full Depth Patch Shall Conform To Mix "B" (High Early) Of Special Provision "Full Depth Patch."



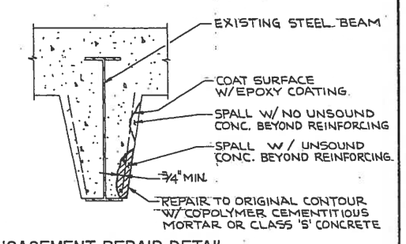
FULL DEPTH PATCH



DECK REPAIR DETAIL

NOTE 'A'
REPAIR WORK SHALL BE PAID FOR UNDER "COPOLYMER CEMENTITIOUS MORTAR PATCH."

NOTE 'B'
EPOXY COATING SHALL BE PAID FOR UNDER "EPOXY PROTECTIVE COATING."



ENCASEMENT REPAIR DETAIL

NO.	DATE	DESCRIPTION

REVISIONS

CONNECTICUT
DEPARTMENT OF TRANSPORTATION

GROTON

MOSHER STREET OVER AMTRAK

PATCH AND REPAIR DETAILS — QUANTITIES

ENGINEER FUSS AND O'NEILL, INC.

DESIGNER M. Q. J. | DRAFTER M.L.M.(M.B.E.) | CHECKER R. F. C.

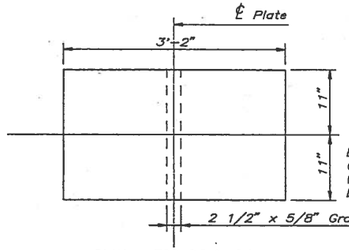
APPROVED [signature] DATE 4-15-91

STRUCTURE NO. | BRIDGE LOG NO. 3903 | STRUCTURE SHEET NO. 2 OF 4

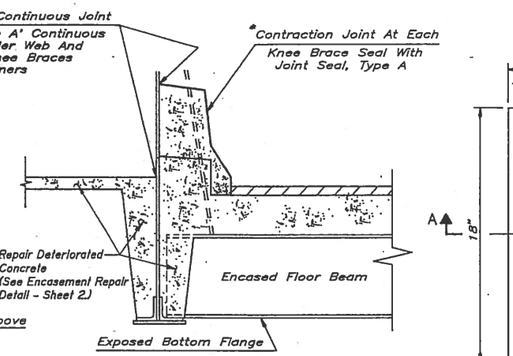
STATE OF CONNECTICUT - DEPT. OF TRANSPORTATION

FORM NO. ENG. 159 ED 3-86

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	GROTON	BHZ0005(404)	172-203	1991	—	16	47



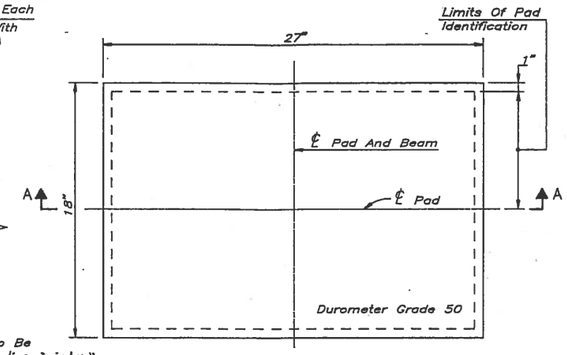
PLAN – TOP OF PLATE



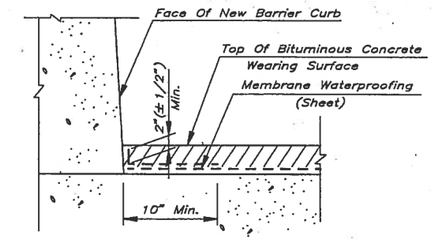
* Cost Of Furnishing And Applying Joint Seal To Be Included In The Item "Caulking And Sealing Joints."

JOINT SEAL DETAIL

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

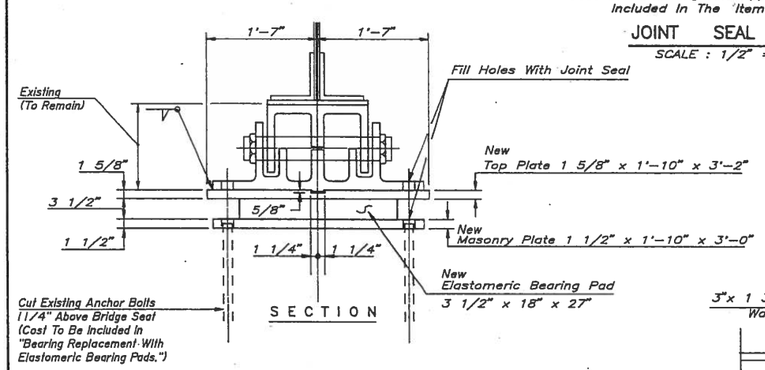


PLAN

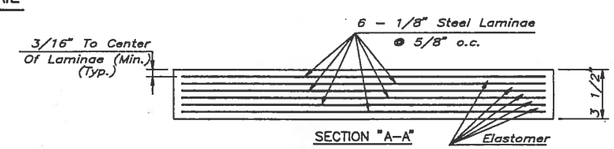


TREATMENT OF MEMBRANE WATERPROOFING AT GUTTER

N. T. S.

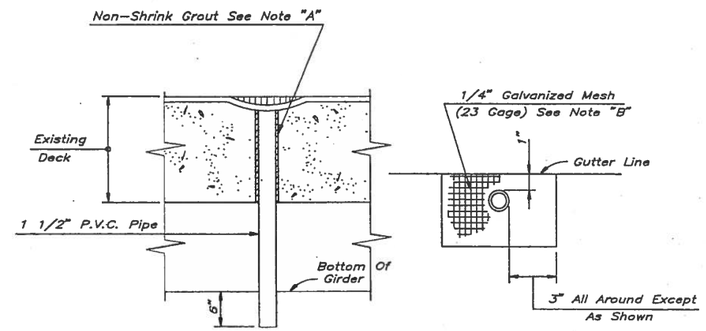


SECTION



ELASTOMERIC BEARING PAD DETAIL

N. T. S.



NOTE "A"

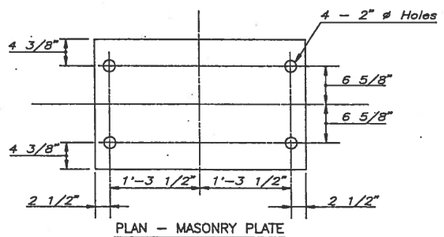
Grout 1 1/2" P.V.C. Plastic Pipe Into 3" ø Core Drilled Weepholes In Existing Deck. The Cost Of Drilling, And Non–Shrink Grout Shall Be Included In The Contract Bid Price For "Polyvinyl Chloride Plastic Pipe Weepholes."

NOTE "B"

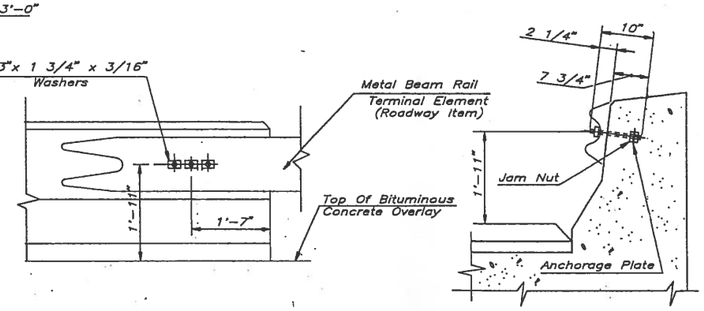
The Cost Of Furnishing And Installing 1/4" Square Galvanized Mesh Shall Be Included In The Contract Bid Price Per Ton For "Bituminous Concrete – Class (12)."

1 1/2" P.V.C. PIPE WEEPHOLE

N. T. S.

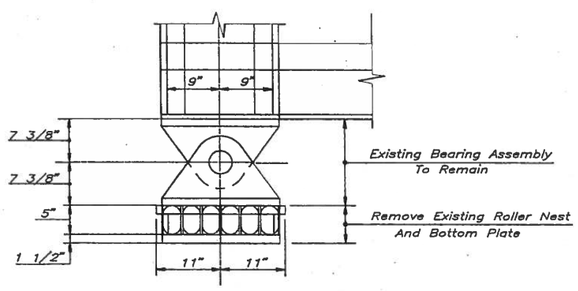


PLAN – MASONRY PLATE



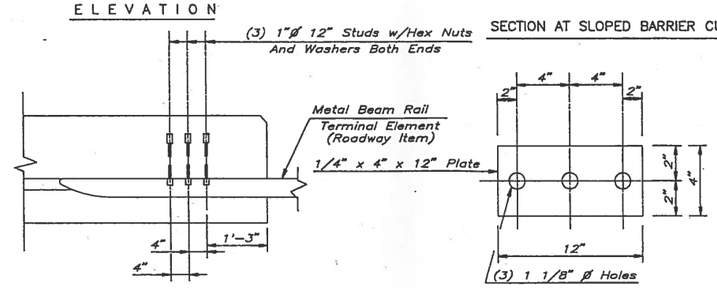
ELEVATION

SECTION AT SLOPED BARRIER CURB



RETROFIT EXPANSION BEARINGS

SCALE : 1" = 1'-0"



PLAN

ANCHORAGE PLATE

NOTE

Anchor Bolts Shall Conform To The Requirements Of A.S.T.M. A449 With Nuts And Washers Conforming To A563 Grade B. Anchor Bolts, Nuts And Washers Shall Be Galvanized In Conformance With The Requirement Of A.S.T.M. A153. Anchorage Plates Shall Conform To The Requirement Of A.S.T.M. A36. All Anchorage Material Will Be Paid For At The Contract Unit Price Per Pound For "Deformed Steel Bars Epoxy Coated."

PARAPET ANCHORAGE FOR METAL BEAM RAIL

N. T. S.

THIS SHEET NOT CORRECTED

NO.	DATE	DESCRIPTION

REVISIONS

CONNECTICUT
DEPARTMENT OF TRANSPORTATION

GROTON

MOSHER STREET OVER AMTRAK

BEARING REPLACEMENT & MISCELLANEOUS DETAILS

ENGINEER FUSS AND O'NEILL, INC.

DESIGNER M. Q. J. | DRAFTER M.L.M.(M.B.E.) | CHECKER R. F. C.

APPROVED [signature] DATE 4-15-91

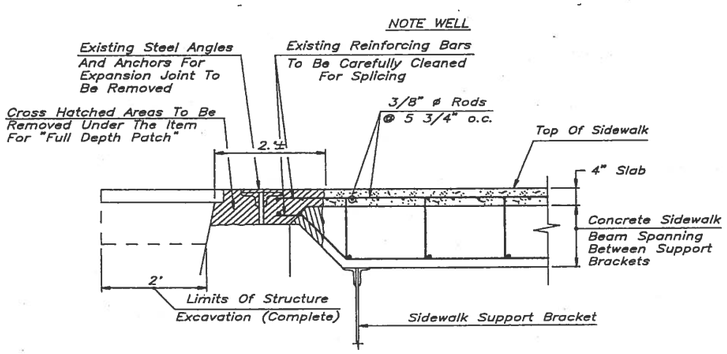
STRUCTURE NO. | BRIDGE LOG NO. 3903 | STRUCTURE SHEET NO. 3 OF 4

172-203

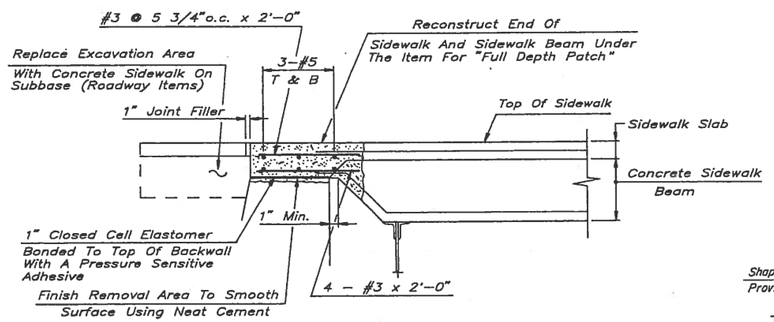
400-02

16

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	G R O T O N	BHZ000S(404)	172-203	1991	—	17	47

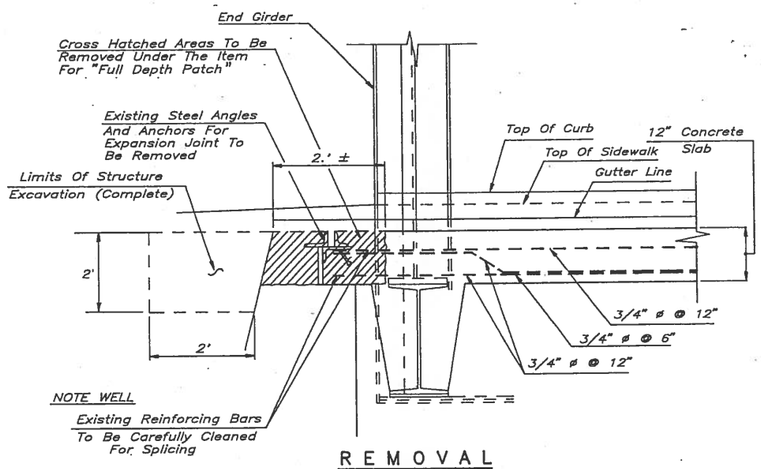


REMOVAL

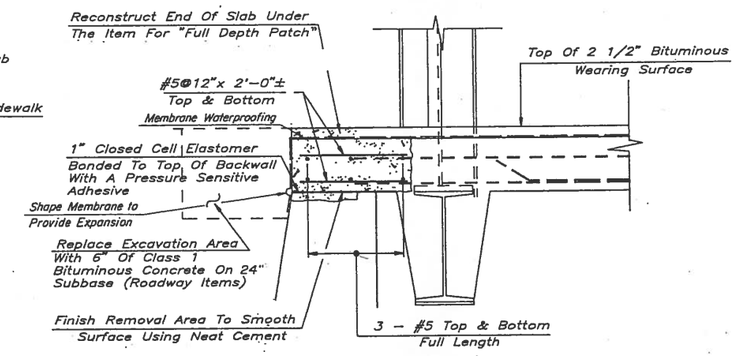


END OF SIDEWALK RECONSTRUCTION – ABUTMENT 1

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

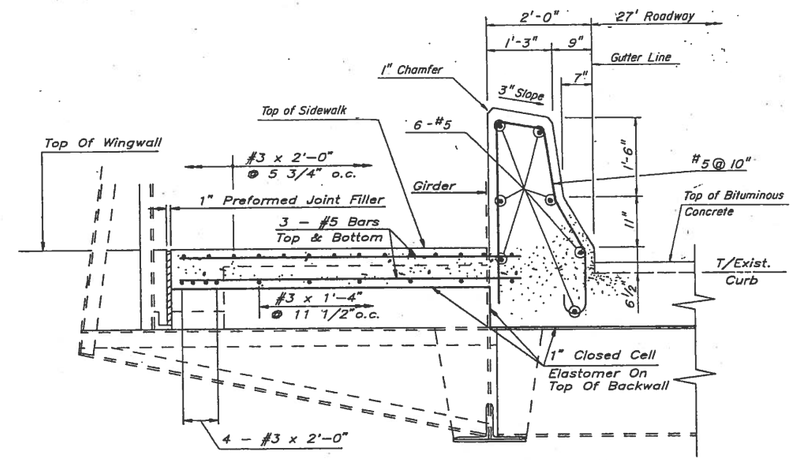


REMOVAL



END OF SLAB RECONSTRUCTION ROADWAY – ABUTMENT 1

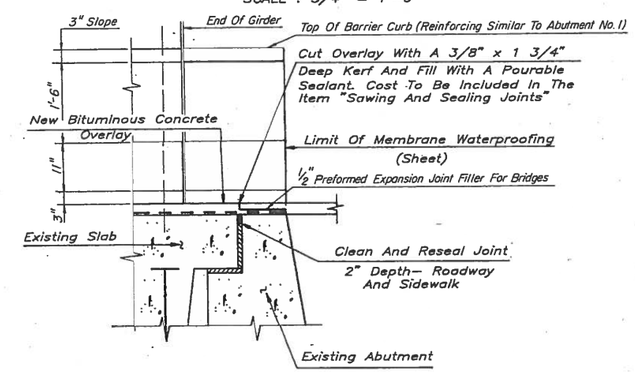
SCALE : 3/4" = 1'-0"



ELEVATION – BACK OF ABUTMENT 1

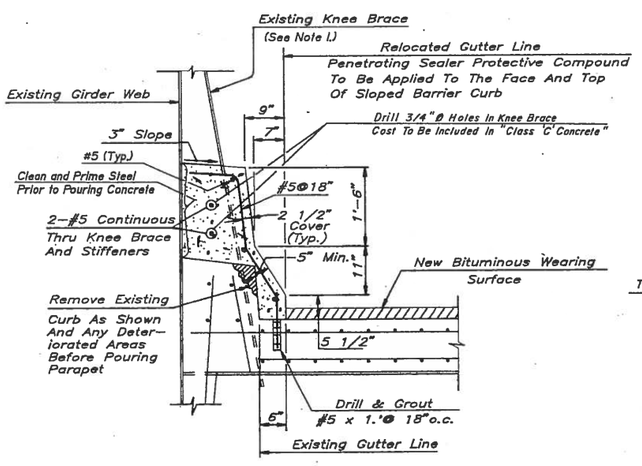
(LOOKING EAST)

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



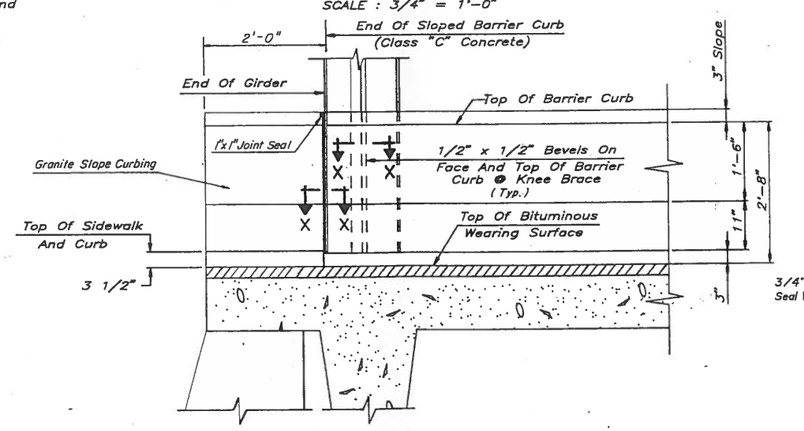
SECTION – ABUTMENT 2

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



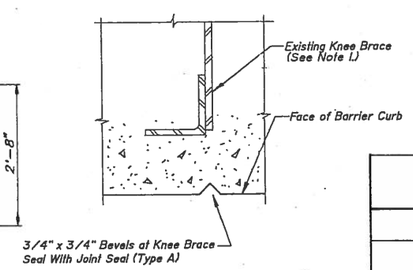
SLOPED BARRIER CURB

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



ELEVATION – END SLOPED BARRIER CURB

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



SECTION X-X

NOT TO SCALE

NOTE:

1. DISTORTED KNEE BRACES SHALL BE STRAIGHTENED AS REQUIRED TO PROVIDE 2" CONCRETE COVER. COST TO BE INCLUDED IN CLASS 'C' CONCRETE.

THIS SHEET NOT CORRECTED

NO.	DATE	DESCRIPTION

REVISIONS

CONNECTICUT
DEPARTMENT OF TRANSPORTATION

G R O T O N

M O S H E R S T R E E T
O V E R
A M T R A K

BARRIER CURB AND SLAB RECONSTRUCTION

ENGINEER FUSS AND O'NEILL, INC.

DESIGNER M. Q. J. | DRAFTER M.L.M.(M.B.E.) | CHECKER R. F. C.

APPROVED [signature] | DATE 4-15-91

STRUCTURE NO. | BRIDGE LOG NO. 3903 | STRUCTURE SHEET NO. 4 OF 4

172-203

400-02

17