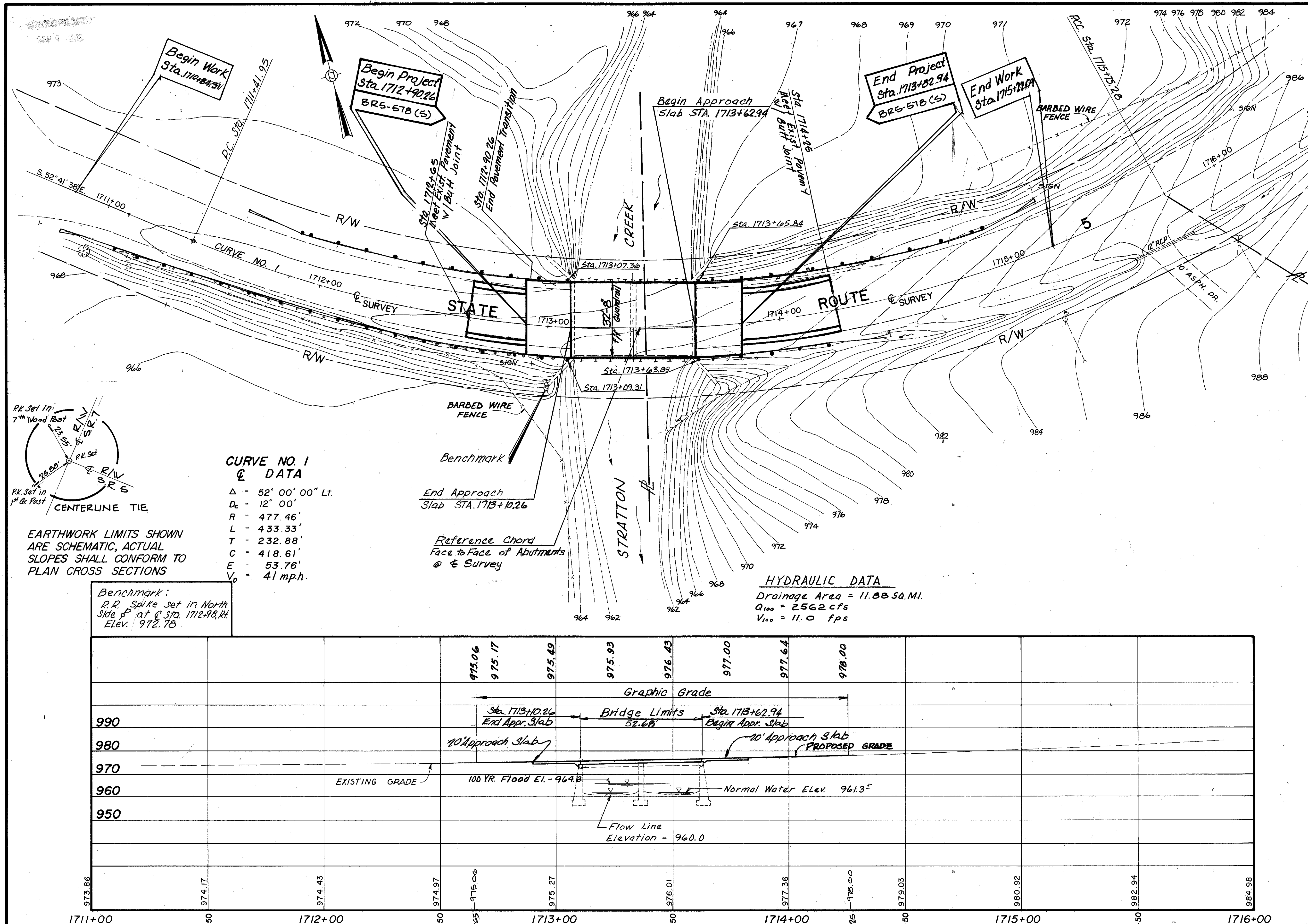


REGION	STATE	PROJECT
5	OHIO	BRS-578 (S)

3
14

TRUMBULL COUNTY
TRU-5-32.45

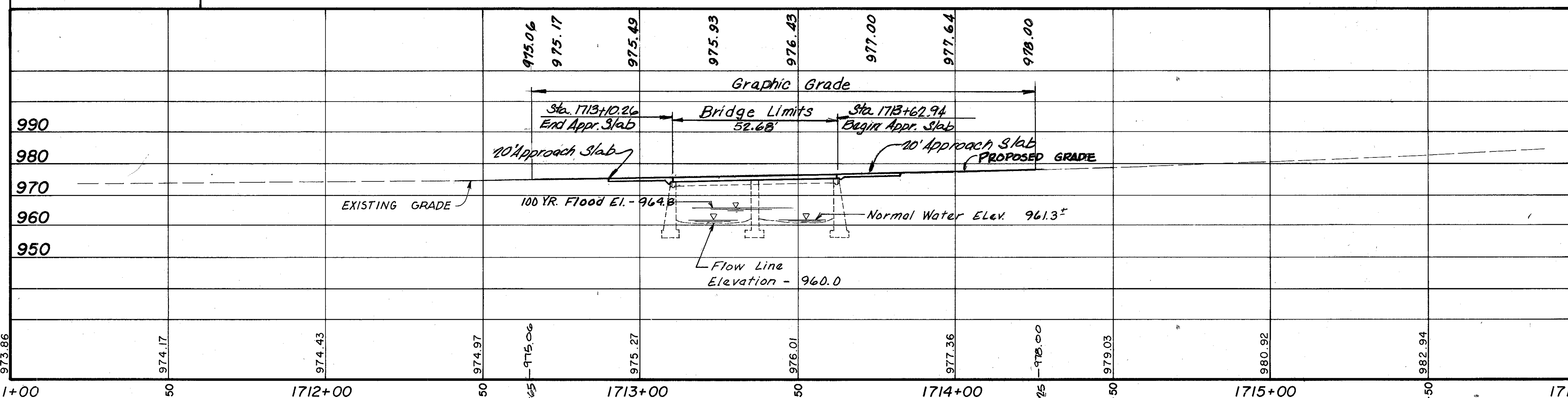


**CURVE NO. 1
DATA**
 $\Delta = 52^\circ 00' 00''$ Lt.
 $D_c = 12' 00''$
 $R = 477.46'$
 $L = 433.33'$
 $T = 232.88'$
 $C = 418.61'$
 $E = 53.76'$
 $V_p = 41$ mph.

EARTHWORK LIMITS SHOWN
ARE SCHEMATIC, ACTUAL
SLOPES SHALL CONFORM TO
PLAN CROSS SECTIONS

Benchmark:
R.R. Spike set in North
Side of C Sta. 1712+98.44
Elev. 972.78

HYDRAULIC DATA
 Drainage Area = 11.88 SQ. MI.
 $Q_{100} = 2562$ cfs
 $V_{100} = 11.0$ fps



EXISTING STRUCTURE

TYPE: Two Span Reinf. Conc. Slab
SPANS: Two 24'-0" Clear Spans
ROADWAY: 30'-9" f/f Guardrail to Curb
SKIEW: 0°
ALIGNMENT: Tangent to Chord of Curve

PROPOSED STRUCTURE

TYPE: Two Span Continuous Reinforced Concrete Slab
SPANS: 25'-3 1/2", 25'-0 3/8" Along Ref. Chord
ROADWAY: 32'-8" f/f Guardrail
SKIEW: 0°
DESIGN LOADING: HS20-44 & Alternate Military Loading
APPROACH SLAB: AS-1-81 (20'-0" long)
ALIGNMENT: Tangent to Chord of 12° LC
SUPERELEVATION: 0.0833 ft/ft.
WEARING SURFACE: Monolithic Concrete
AVG. DAILY TRAFFIC: 1310 (1987)
DESIGN DAILY TRAFFIC: 1700 (2007)
 STRUCTURE FILE No. 7801505

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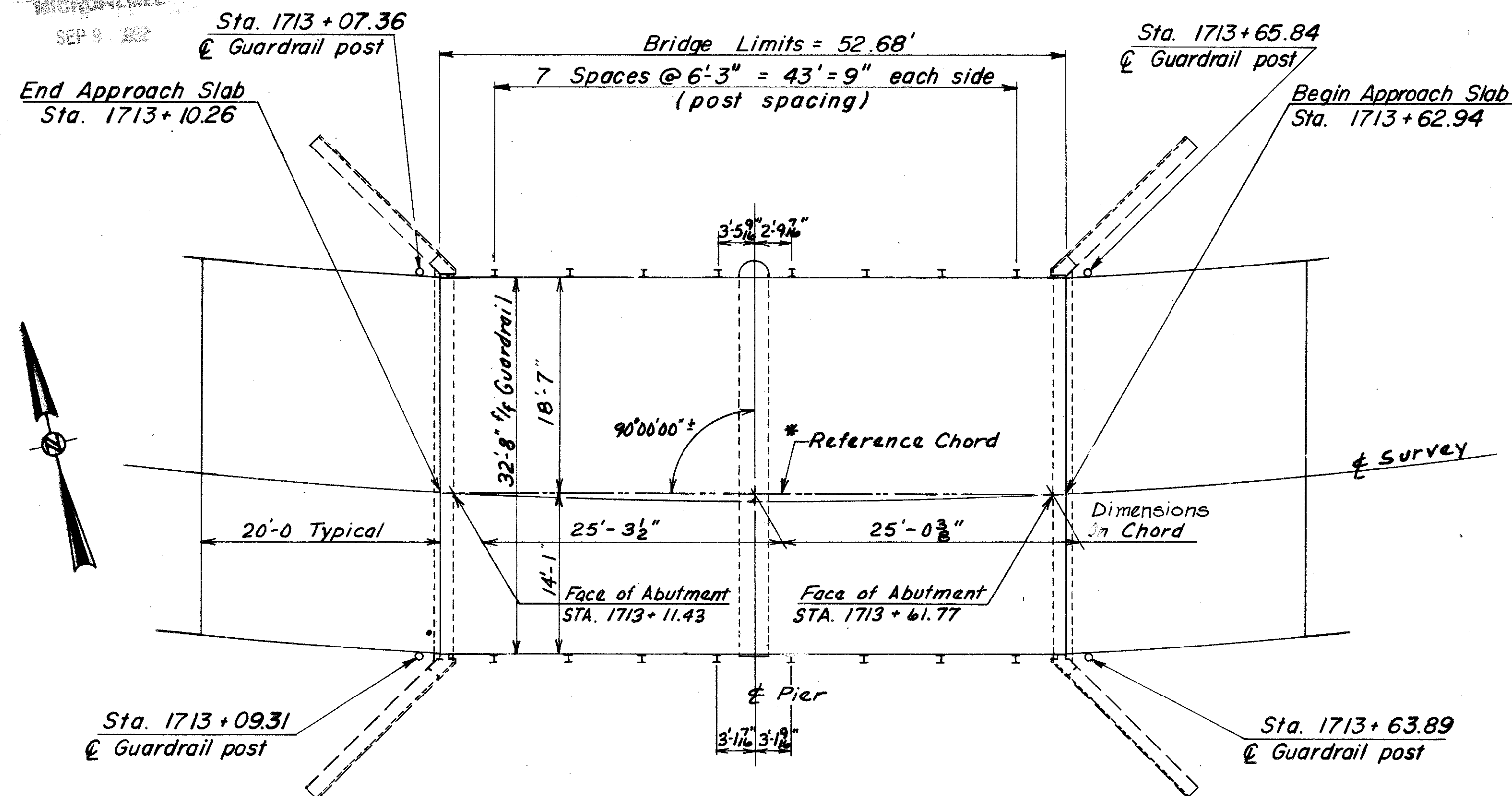
SITE PLAN

BRIDGE NO. TRU-5-3245 DECK
 REPLACEMENT OVER STRATTON CREEK
 TRUMBULL COUNTY STA 1713+10.26
 1713+62.94

REVIEWED BY BURGESS & NIPLE, LIMITED
 M.P.B. 11/10/87

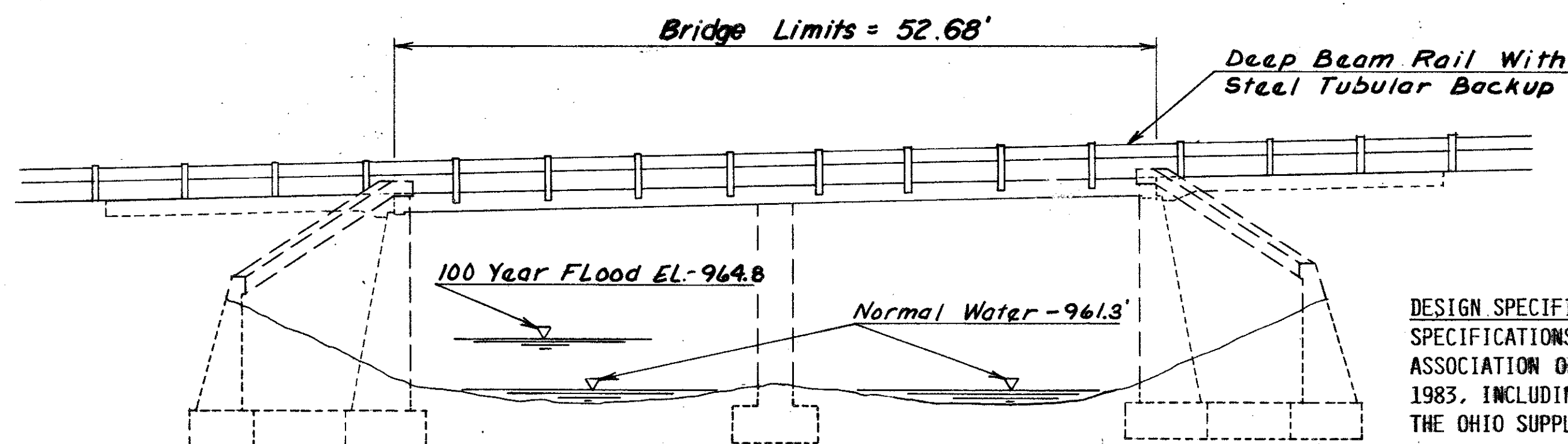
PRESENT TOPOGRAPHY	DESIGNED	DRAWN	CHECKED	REVIEWED
SURVEYED	R.P.M.	D.L.C.	D.L.C.	T.F.
	3-87	5/87	5/87	7-87

RECEIVED
SEP 9 1987



GENERAL PLAN

*- Reference Chord - Chord of Survey
Face-to-Face of Abutments.



ELEVATION

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING THE 1984 AND 1985 INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

CONCRETE CLASS C: COMPRESSIVE STRENGTH 4,000 P.S.I. FOR SUBSTRUCTURE.

CONCRETE CLASS S: COMPRESSIVE STRENGTH 4,500 P.S.I. FOR SUPERSTRUCTURE.

REINFORCING STEEL: ASTM A615, A616 OR A617, GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81 DATED 11-27-81
DBR-2-73 DATED 4-10-73

AND TO SUPPLEMENTAL SPECIFICATION:

824 DATED 10-08-82
836 DATED 11-12-85

DESIGNER: D.L.C. DATE: 7-87

CHECKER: R.G.M. DATE: 7-87

REGION	STATE	PROJECT
5	OHIO	BRS-578(1)

TRUMBULL COUNTY
TRU - 5 - 32.45

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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIER	GENERAL
202	LUMP	SUM	PORTIONS OF STRUCTURES REMOVED				LUMP
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP
509	2064	LLs.	REINFORCING STEEL, GRADE 60		1334	730	
510	181	Ea.	DOWEL HOLES		110	71	
511	6	CU.YD.	CLASS C CONCRETE, PIER, (See Proposal Note)			6	
511	8	CU.YD.	CLASS C CONCRETE, ABUTMENTS, (See Proposal Note)		8		
511	86	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE, (See Proposal Note)	86			
512	13	SQ.YD.	TYPE A WATERPROOFING		13		
512	24	SQ.YD.	TYPE B WATERPROOFING		24		
516	30	SQ.FT.	1/2" PREFORMED EXPANSION JOINT FILLER		30		
517	112.5	LIN.FT.	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP & TYPE 2 POSTS)	112.5			
518	58	CU.YD.	POROUS BACKFILL, AS PER PLAN		60		
519	62	SQ.FT.	PATCHING CONCRETE STRUCTURES		62		
824	13,816	Lbs.	EPOXY COATED REINFORCING STEEL, GRADE 60	13,816			
Special	32	SQ.YD.	SEALING OF CONCRETE SURFACES (See Proposal Note)	21		11	
Special	51	SQ.FT.	STEEL DRIP STRIP	51			

GENERAL NOTES

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C.M.S. SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ITEM SPECIAL, SEALING OF CONCRETE SURFACES: A CONCRETE SEALER SHALL BE APPLIED TO THE DECK FASCIA AND OVERHANG UNDERSIDE AS SHOWN ON SHEET 6/7 AND TO THE UPSTREAM FACE OF THE PIER AS SHOWN ON SHEET 5/7. SEE THE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

DECK PROTECTION METHOD:

PRIMARY: EPOXY-COATED REINFORCING STEEL,
TOP AND BOTTOM MATS.

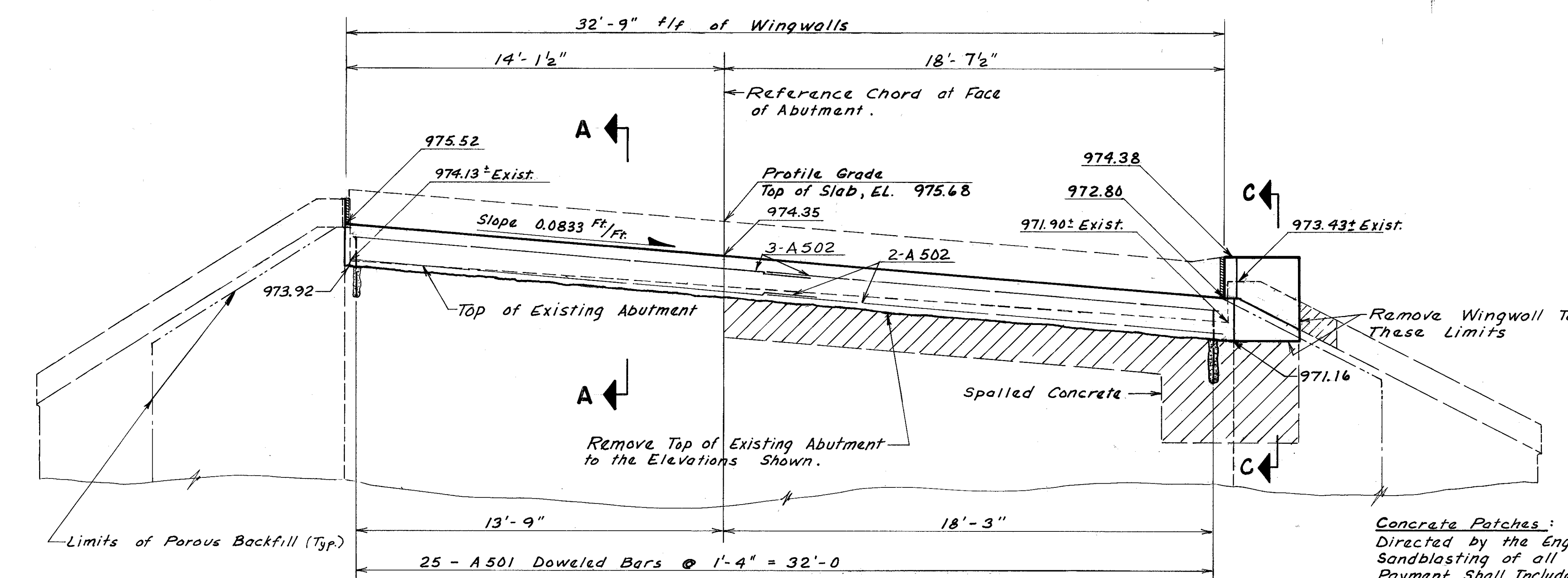
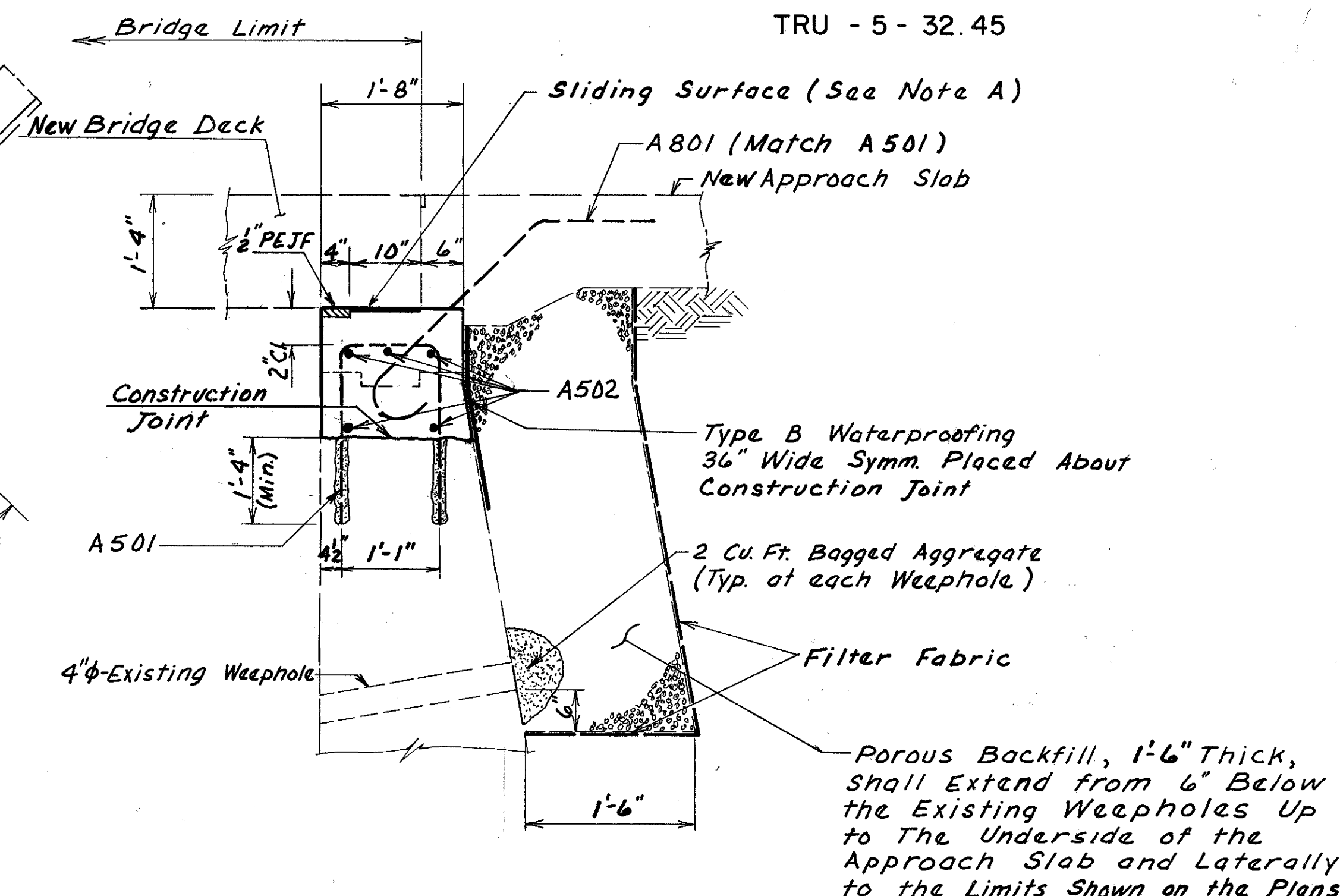
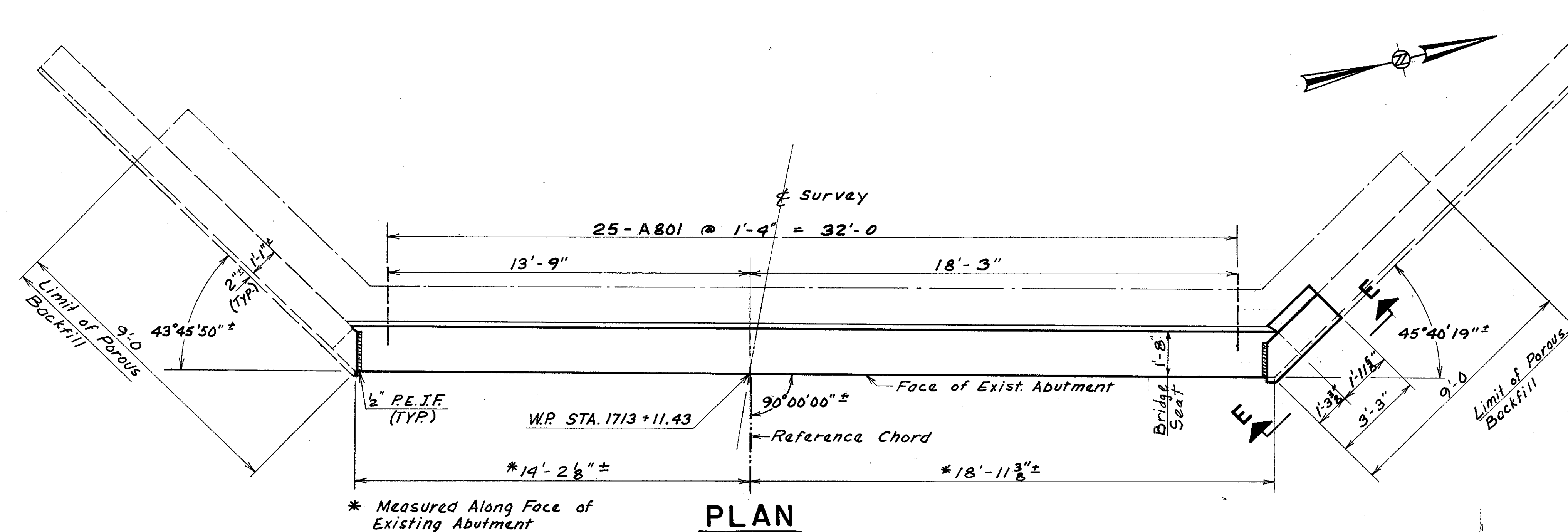
MONOLITHIC WEARING SURFACE: IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

PORTIONS OF STRUCTURES REMOVED: THIS ITEM INCLUDES THE REMOVAL OF THE ENTIRE REINFORCED CONCRETE DECK AND ASPHALT WEARING SURFACE, AND THE PARTIAL REMOVAL OF THE CONCRETE ABUTMENTS AND PIER TO THE LIMITS SHOWN ON SHEETS 3/7, 4/7 AND 5/7. PAYMENT FOR THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE, ITEM 202, PORTIONS OF STRUCTURES REMOVED.

THE CONTRACTOR SHALL PERFORM UNCLASSIFIED EXCAVATION BEHIND THE ABUTMENTS TO THE LIMITS SHOWN ON SHEETS 3/7 AND 4/7 PRIOR TO THE REMOVAL OF THE EXISTING DECK SLAB. ALL EXCAVATION NECESSARY TO MODIFY THE EXISTING STRUCTURE SHALL BE INCLUDED IN THE PORTIONS OF STRUCTURES REMOVED FOR PAYMENT.

PORTIONS OF THE STRUCTURE DESIGNATED FOR REMOVAL SHALL BE REMOVED BY METHODS OF THE CONTRACTOR'S SELECTION, AS APPROVED BY THE ENGINEER. CARE SHALL BE TAKEN TO AVOID DROPPING REMOVALS INTO THE STREAM.

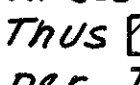
THOMAS FOK & ASSOCIATES, LIMITED				
CONSULTING ENGINEER, SURVEYOR & PLANNER				
3896 MAHONING AVE. YOUNGSTOWN, OHIO				
GENERAL PLAN, NOTES AND QUANTITIES				
BRIDGE NO. TRU-5-3245 DECK REPLACEMENT OVER STRATTON CREEK				
TRUMBULL COUNTY OHIO				
SURVEYED	DESIGNED	DRAWN	CHECKED	REVIEWED
	D.L.C.	R.G.M.	R.G.M.	T.E.
	6/87	6/87	7-87	7-87



Concrete Patches: Structural Patches Shall be Made as Directed by the Engineer. Surface Preparation Shall Include Sandblasting of all Reinforcing Steel and Concrete to be Patched. Payment Shall Include all Work, Including Sandblasting, Necessary to Comply with Item 519.

Construction Joint Preparation: Saw cut Boundaries of Proposed removals 1 inch deep. Remove Concrete to a Rough Surface. Where Practicable, at Least a 1'-0 Length of Protruding Reinforcing Steel Shall be Left in Place. Install Dowel Bars as Specified. Prior to Concrete Placement, abrasively Clean Joint Surface and Exposed Reinforcement to Remove Loose and Disintegrated Concrete and Loose Rust. Then, the Joint Surface and Exposed Reinforcement Shall be Thoroughly Cleaned of all Dirt, Dust, or Other Foreign Materials by the use of Water, air Under Pressure, or Other Method That Produces Results Satisfactory to the Engineer. The Concrete Bonding Surface Shall be Wet Without Free Water as Concrete is Placed.

NOTES:

1. Areas of Spalled Concrete Indicated Thus , Shall be Repaired as per Item 519, Patching Concrete Structures.
2. Prior to Any Removal of Concrete, The Area Behind the Abutment's Shall be Excavated Down to 6" Below the Existing Weepholes.
3. Footings Omitted in Plan View For Clarity.
4. For Sections and Details Not Shown, See Sheet 4/7.

ELEVATION

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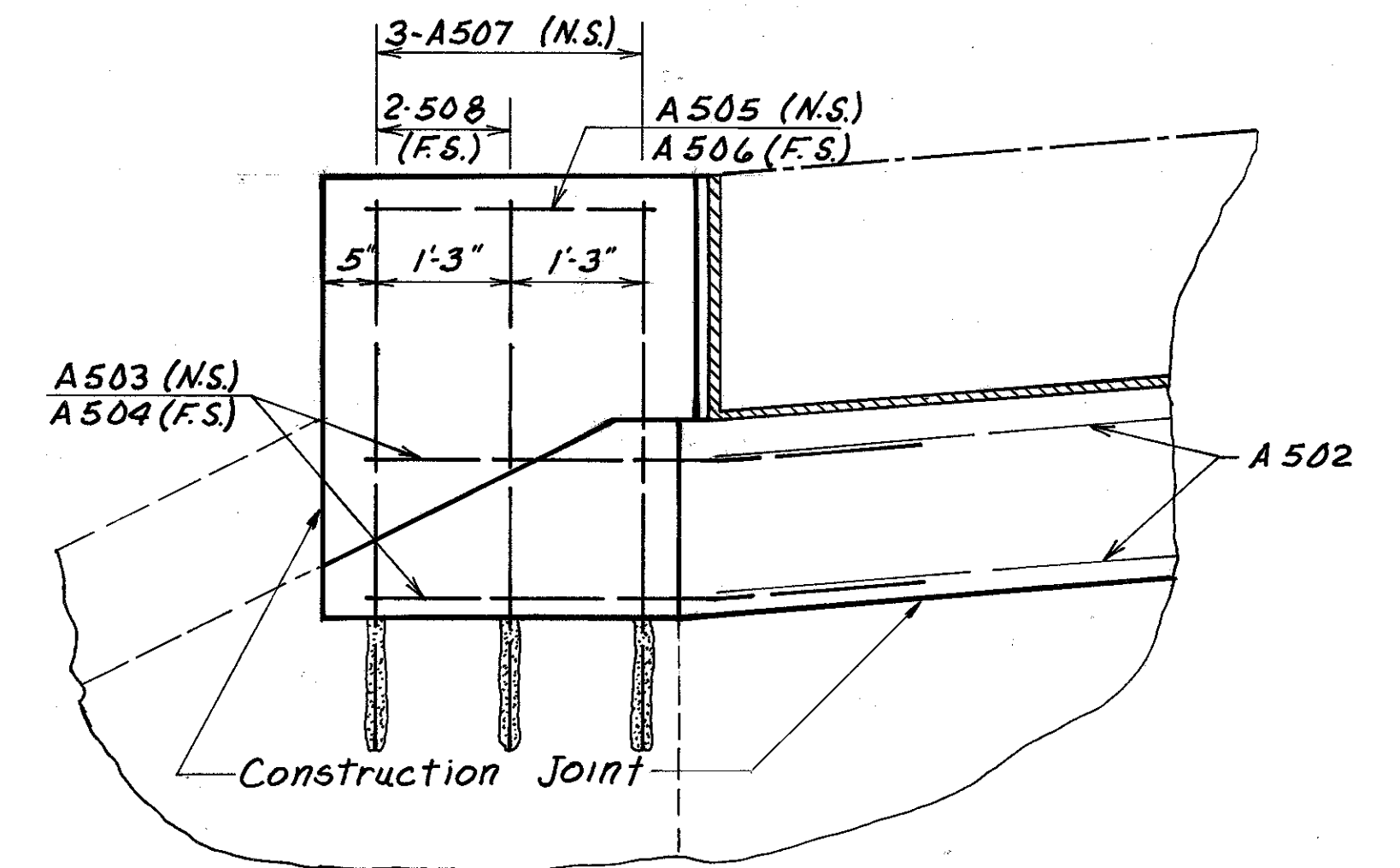
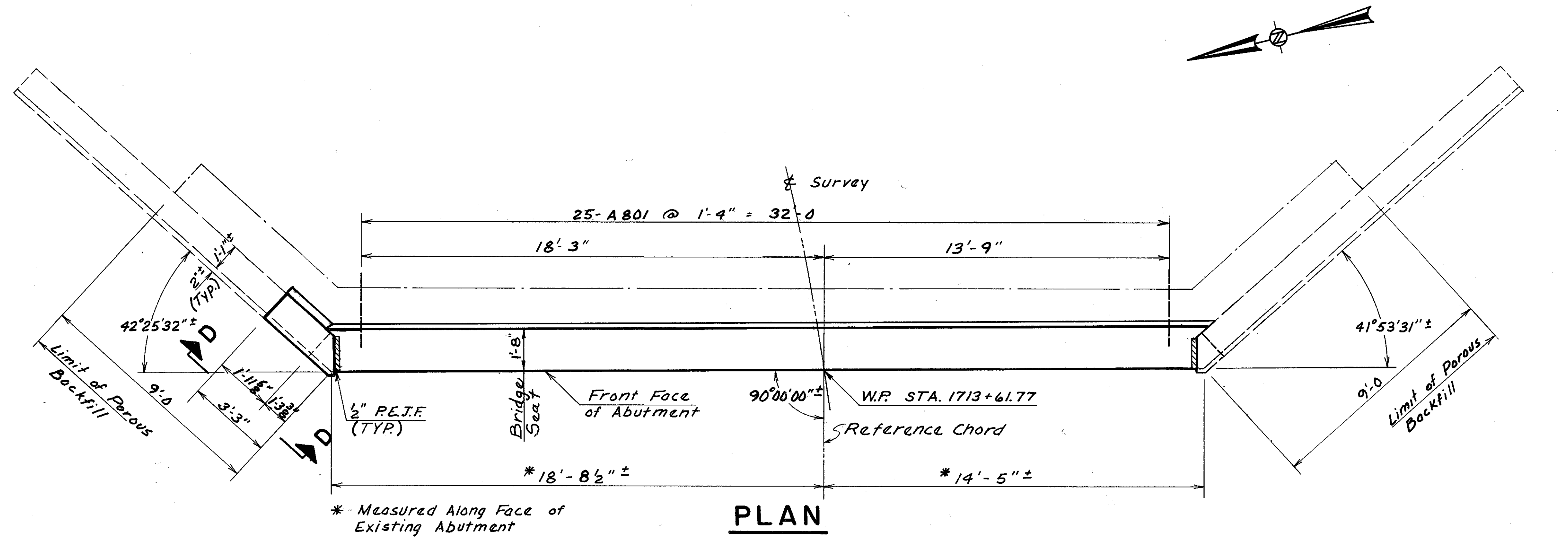
REAR ABUTMENT DETAILS

BRIDGE NO. TRU - 5 - 3245 DECK
REPLACEMENT OVER STRATTON CREEK

TRUMBULL COUNTY OHIO

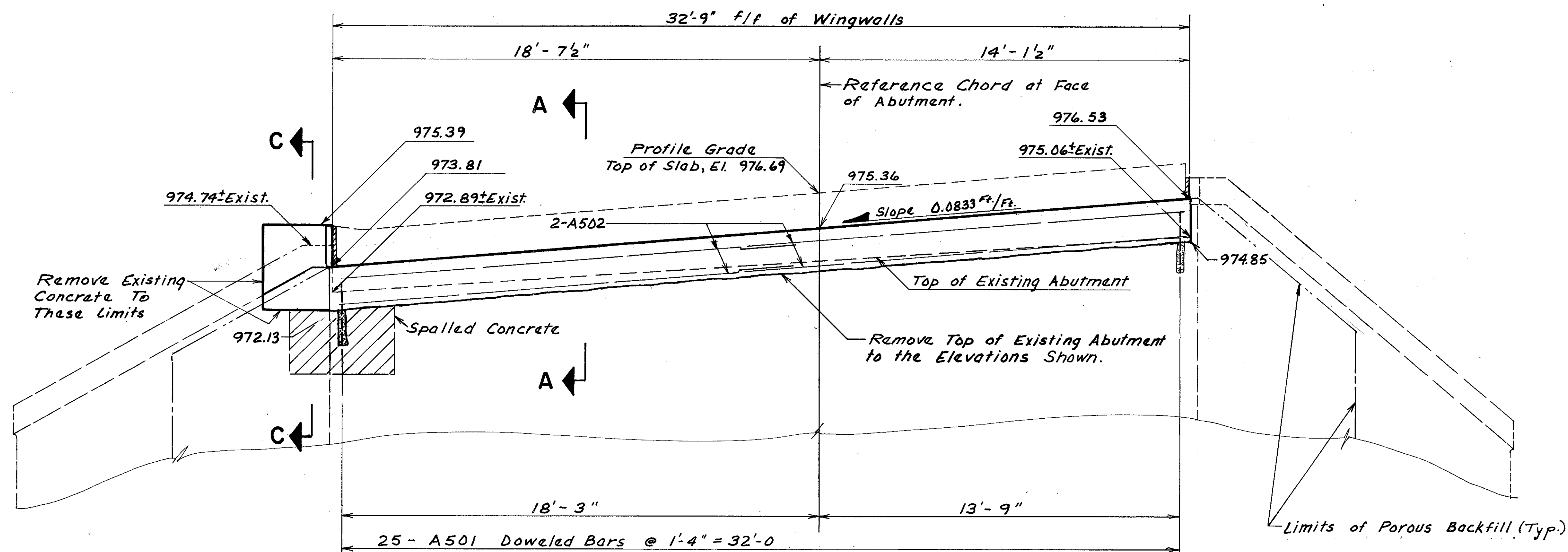
SURVEYED	DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
	D/C	D/C	D/C	T/P	
	6/87	6/87	7-87	7-87	

TRUMBULL COUNTY
TRU - 5 - 32.45

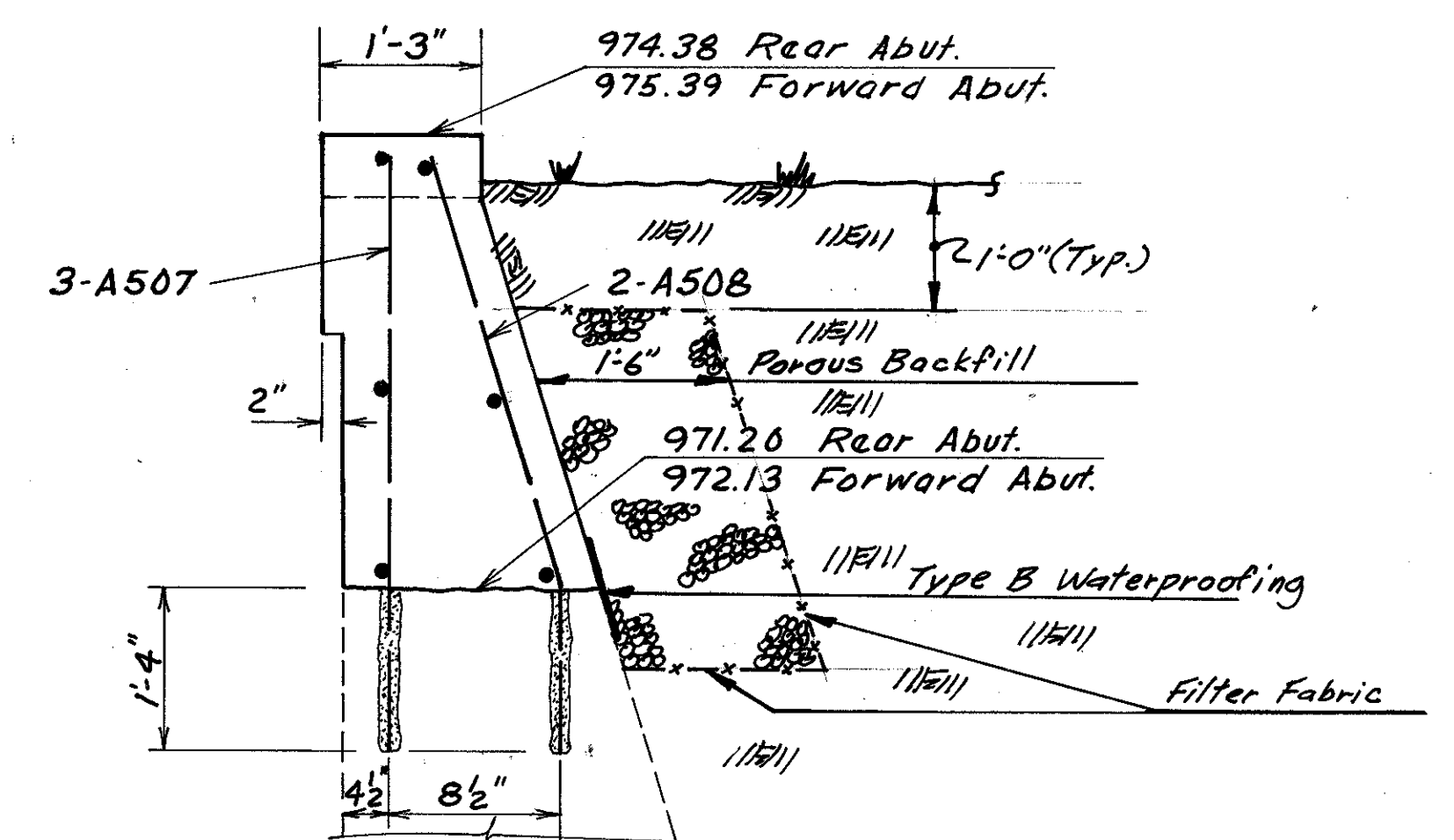


VIEW D-D (SHOWN)

VIEW E-E (OPPOSITE HAND & SIMILAR)



ELEVATION



SECTION C-C

NOTE:
For Notes and Details Not Shown,
See Sheet 3/7.

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FORWARD ABUTMENT DETAIL

BRIDGE NO. TRU-5-3245 DECK
REPLACEMENT OVER STRATTON CREEK

TRUMBULL COUNTY OHIO

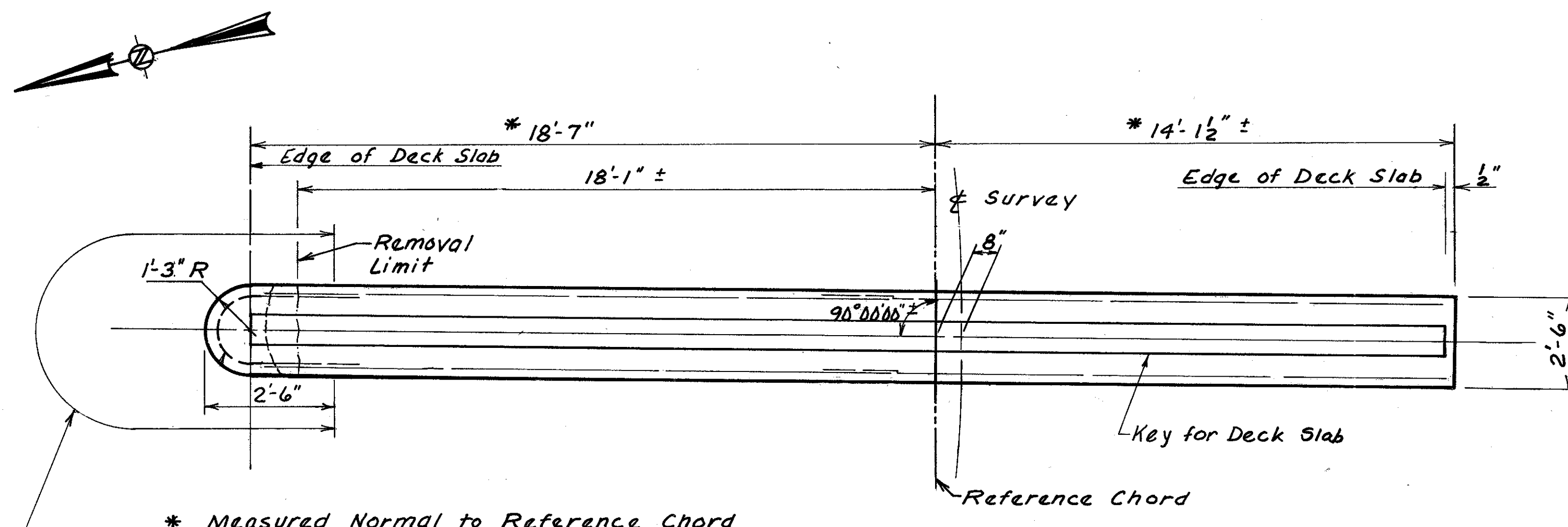
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_____	<u>6/87</u>	<u>6/87</u>	<u>7-87</u>	<u>7-87</u>	_____

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REGION	STATE	PROJECT
5	OHIO	BRS-578(1)

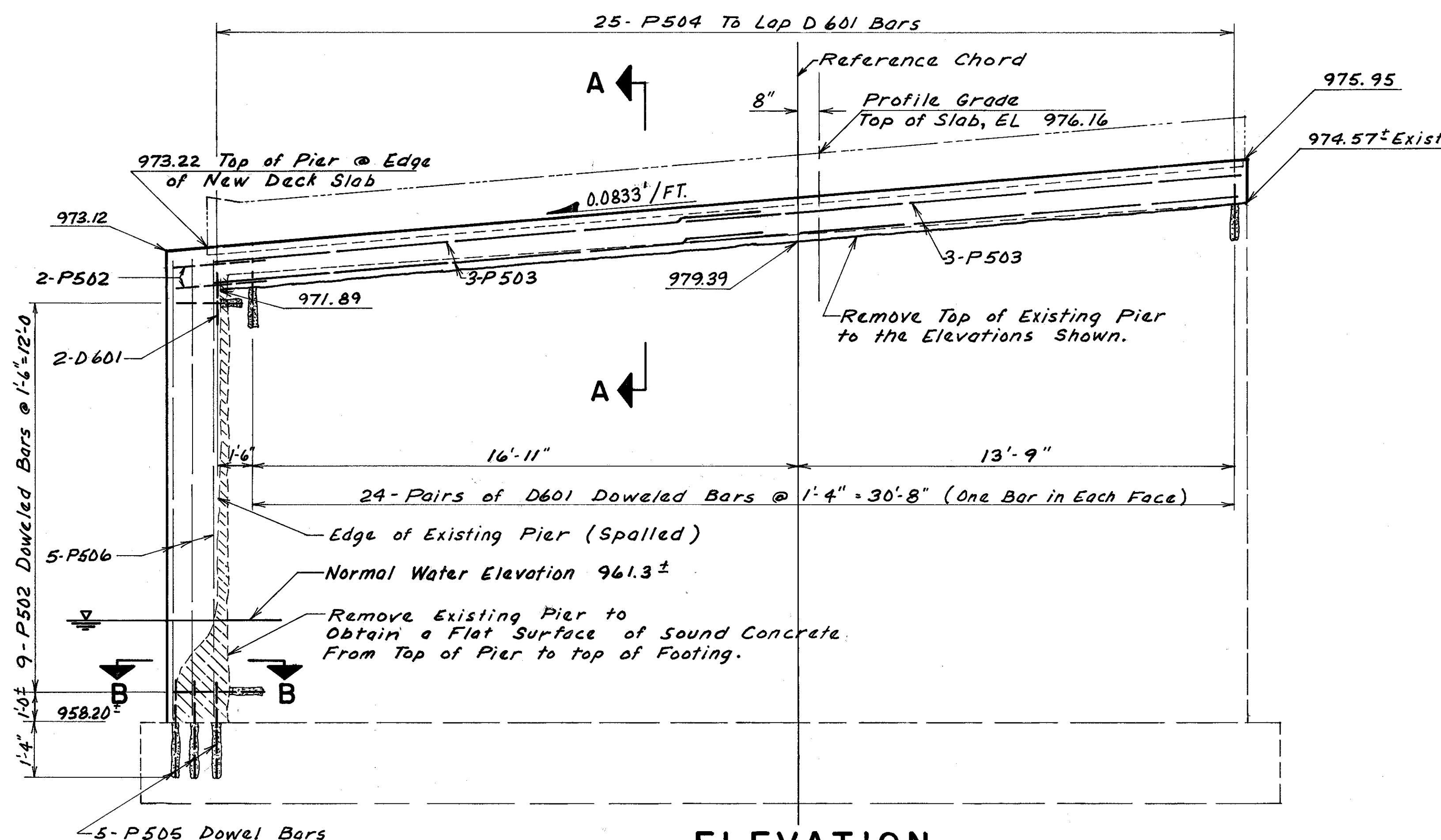
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TRUMBULL COUNTY
TRU - 5 - 32.45

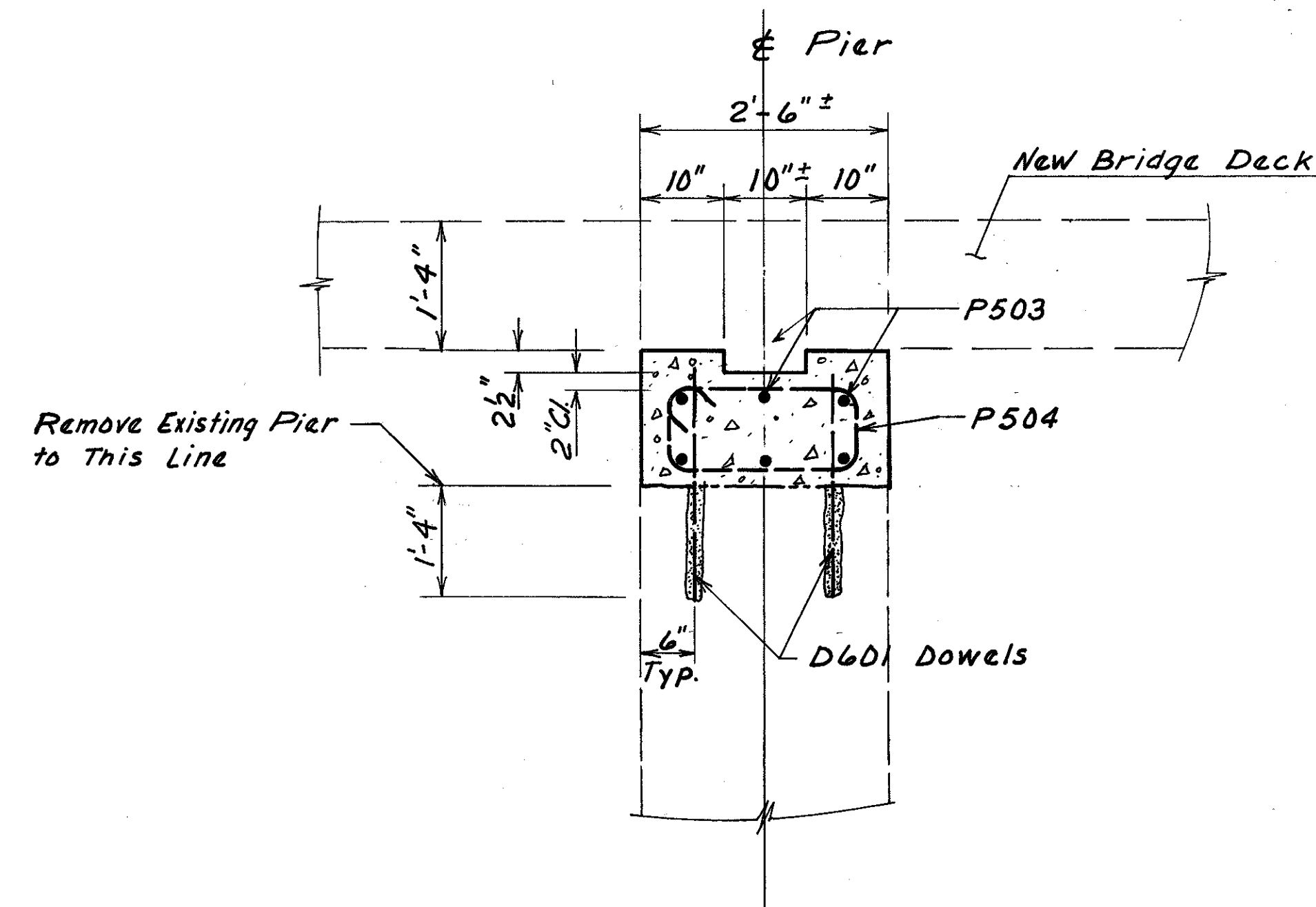


PLAN

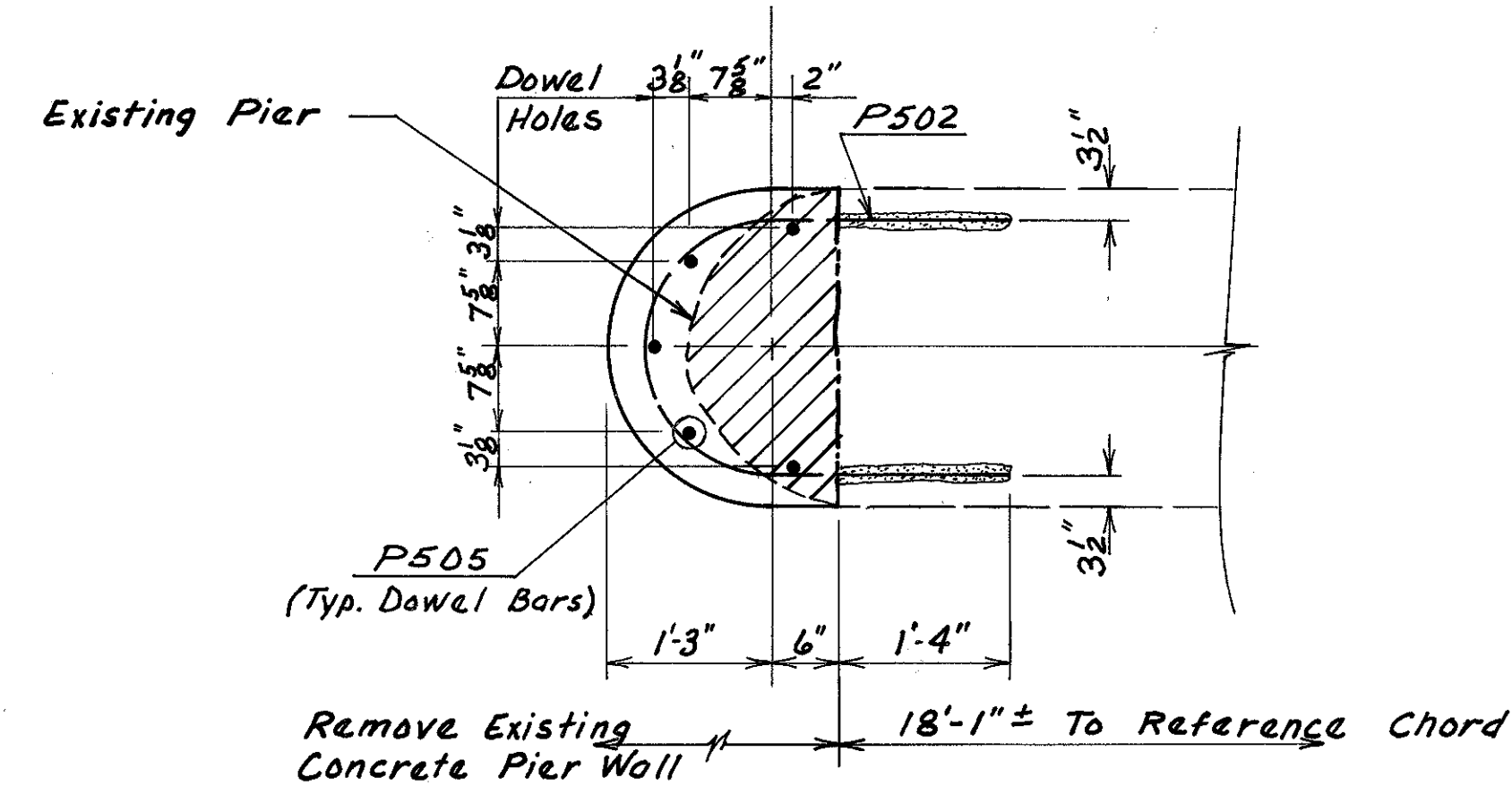
Sealing of Concrete Surface
for Full Height of Rehabilitated Pier



ELEVATION



SECTION A-A



SECTION B-B

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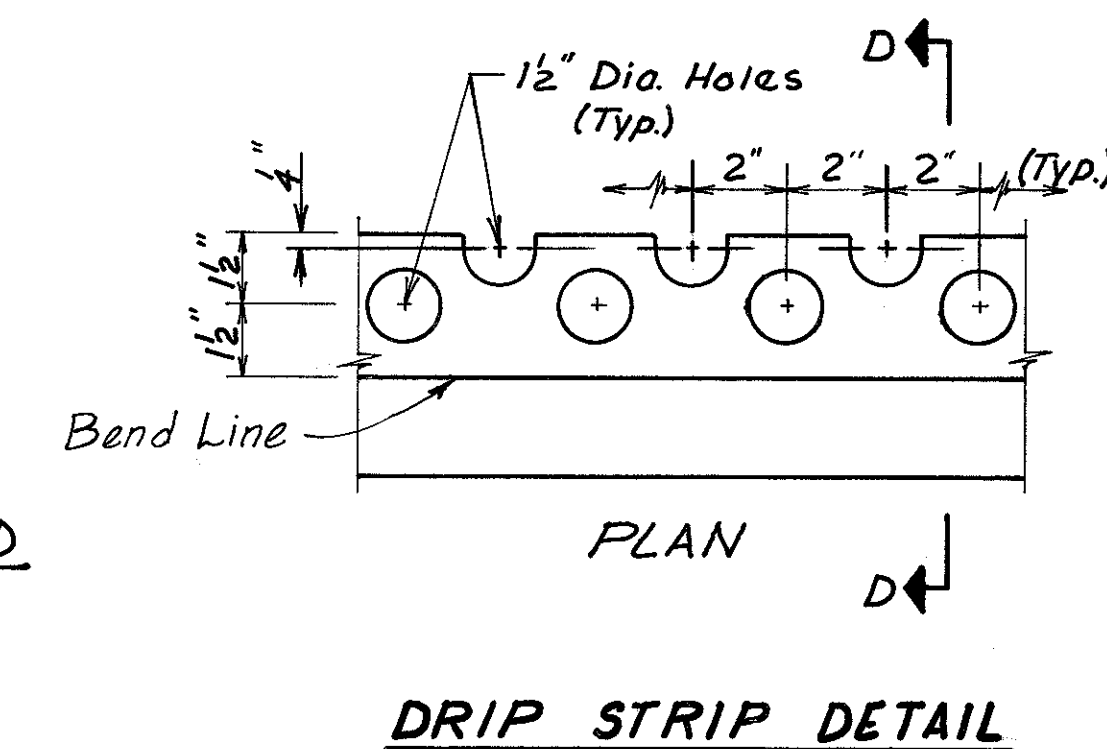
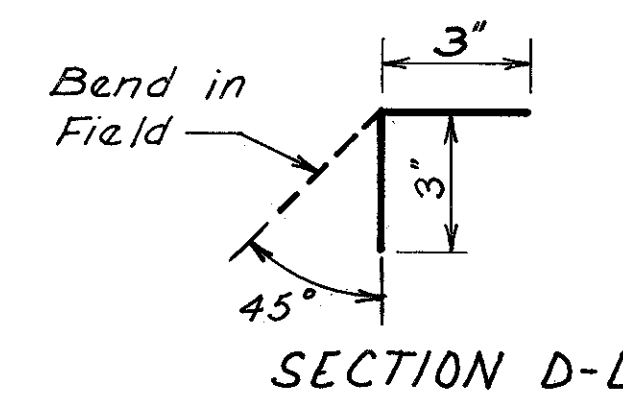
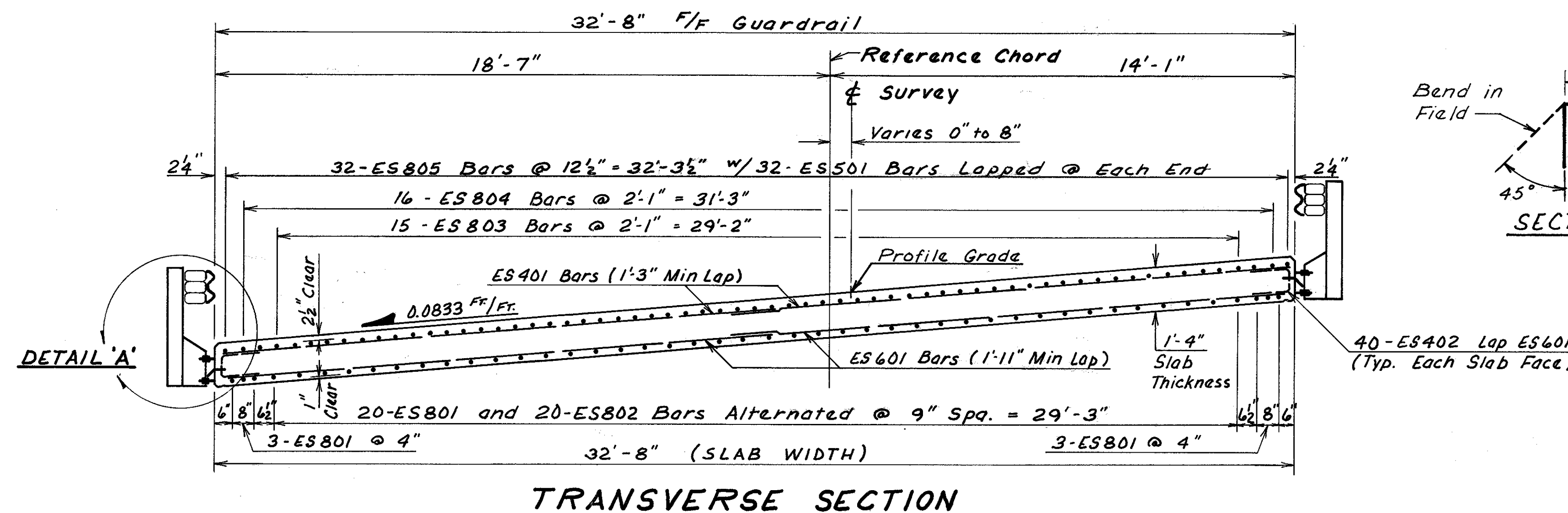
PIER DETAILS

BRIDGE NO. TRU-5-3245 DECK
REPLACEMENT OVER STRATTON CREEK
TRUMBULL COUNTY OHIO

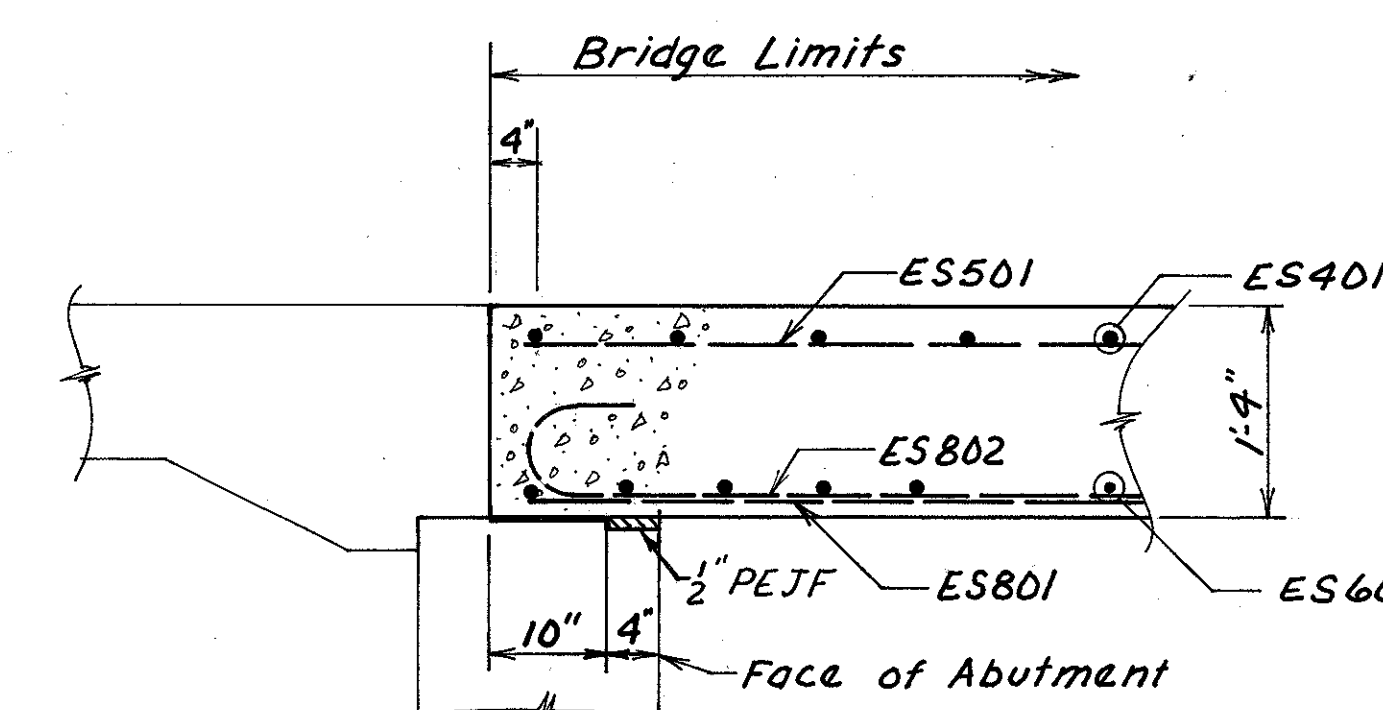
SURVEYED	DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
	DLC	DLC	R.S.M.	T.B.	
	6/87	6/87	7-87	7-87	

TRUMBULL COUNTY

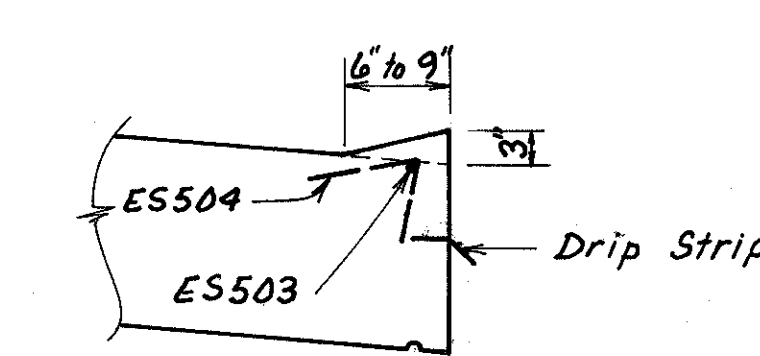
TRU - 5 - 3245



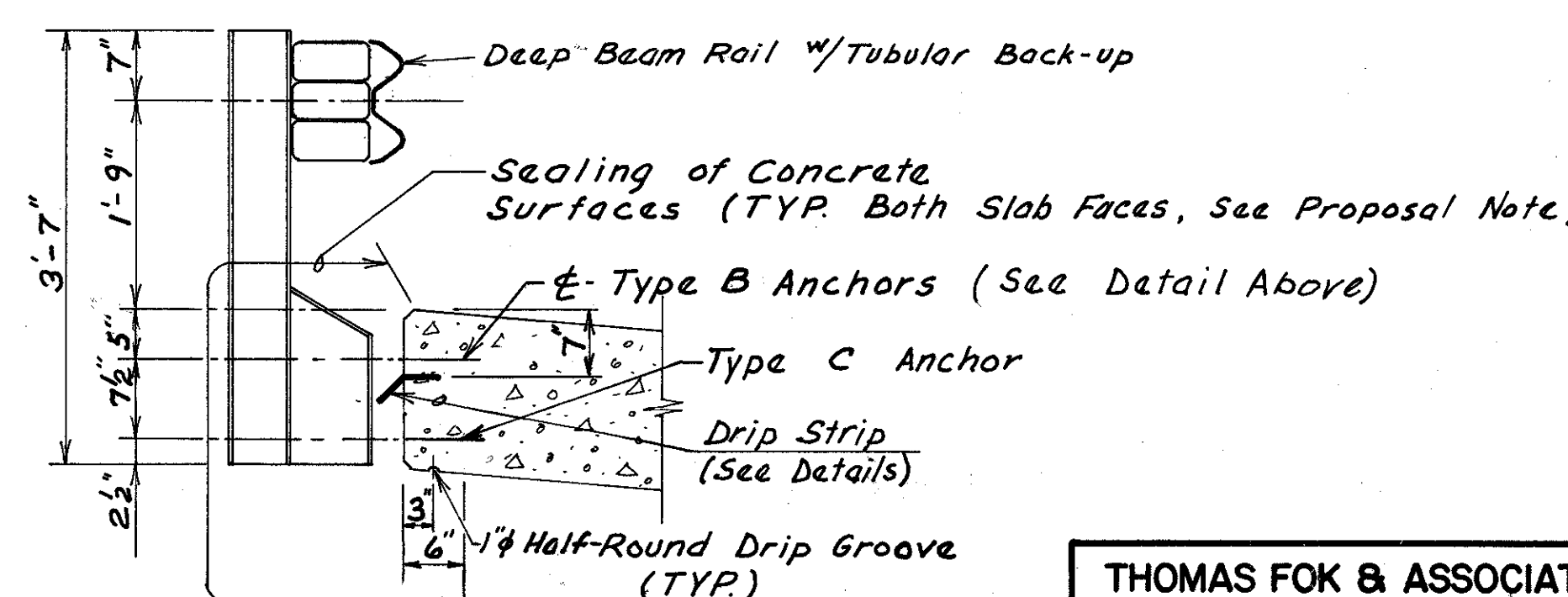
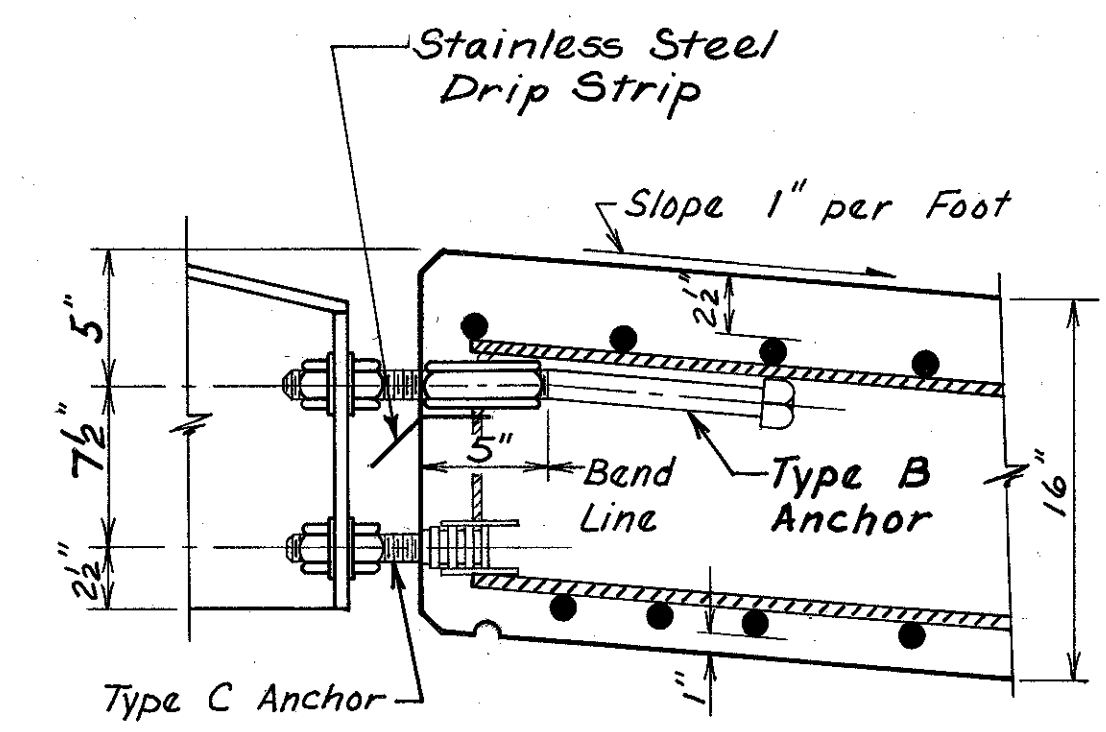
DRIP STRIP: A Stainless Steel Drip Strip Shall be Provided on Both Deck Fascias. Stainless Steel Shall be 20 Gauge ASTM A167, Type 304, Mill Finish. The Drip Strip Shall Have one Leg Perforated as Detailed and Shall be Fabricated With a 90° Bend. The Vertical Leg Shall be Tacked to the Inside of the Deck Fascia Forms and the Horizontal, Perforated Leg Shall be Embedded in the Deck Concrete at the Location Shown in Detail "A". Where Splices are Required, the Individual Pieces Shall be Butted Tightly Together, Not Lapped. After Concrete has Sufficiently Cured and Deck Forms are Removed, The Vertical Leg Shall be Bent Away From the Deck Fascia to a 45° Angle. Payment Shall be Made at the Contract Price Bid For Item Special, Sq. Ft., Steel Drip Strip, and Shall Include all Materials, Labor, Tools, and Incidentals Necessary to Complete The Item.



SECTION B-B

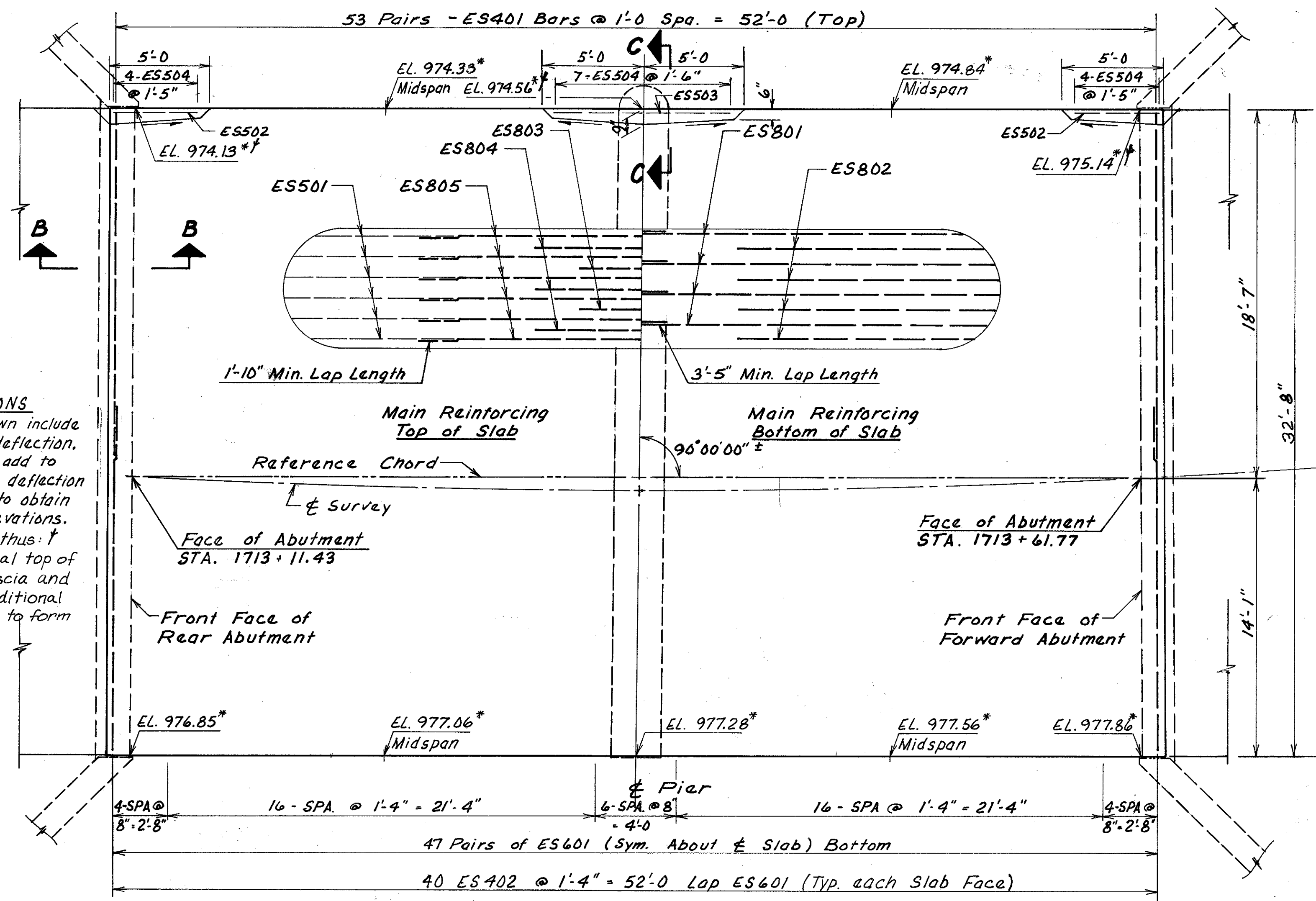


SECTION C-C



Type 2 Posts
For Other Details See DBR-2-73

***SCREED ELEVATIONS**
The elevations shown include allowance for slab deflection. The contractor must add to these elevations the deflection due to false work to obtain the final Screed elevations. Elevations indicated thus: * are at the theoretical top of slab on the north fascia and do not reflect the additional thickness necessary to form the curb section.



Note: Reinforcement Placed Symmetrically About & Pier.
Transverse Reinforcing Steel Not Shown in Insert.

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SUPERSTRUCTURE DETAILS					
BRIDGE NO. TRU-5-3245 DECK					
REPLACEMENT OVER STRATTON CREEK					
TRUMBULL COUNTY OHIO					
SURVEYED	DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
	DLC	DLC	6/87	T/E	
	6/87	6/87	7/87	7-87	

