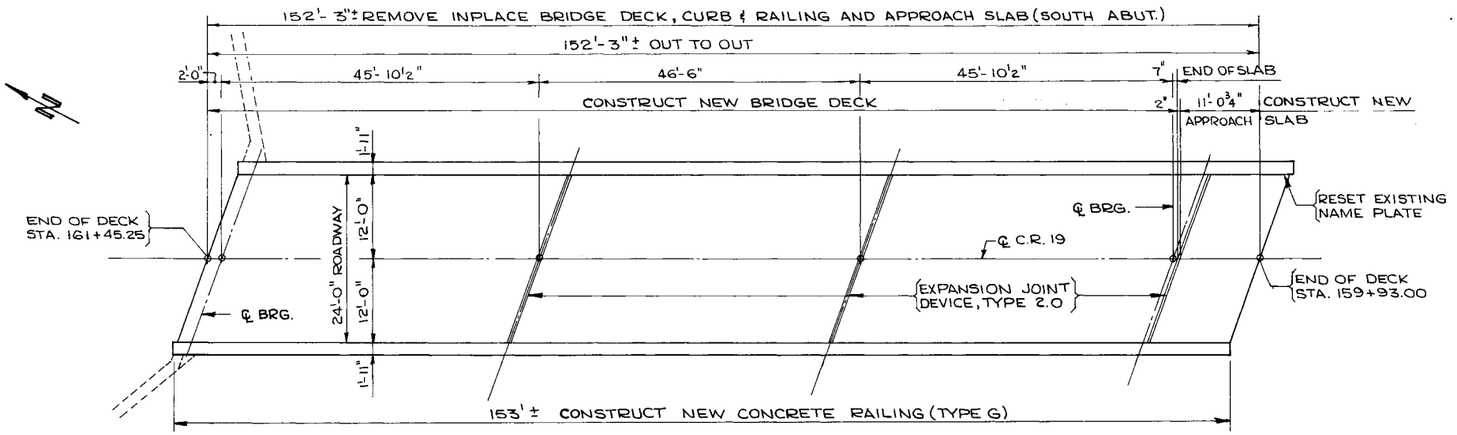
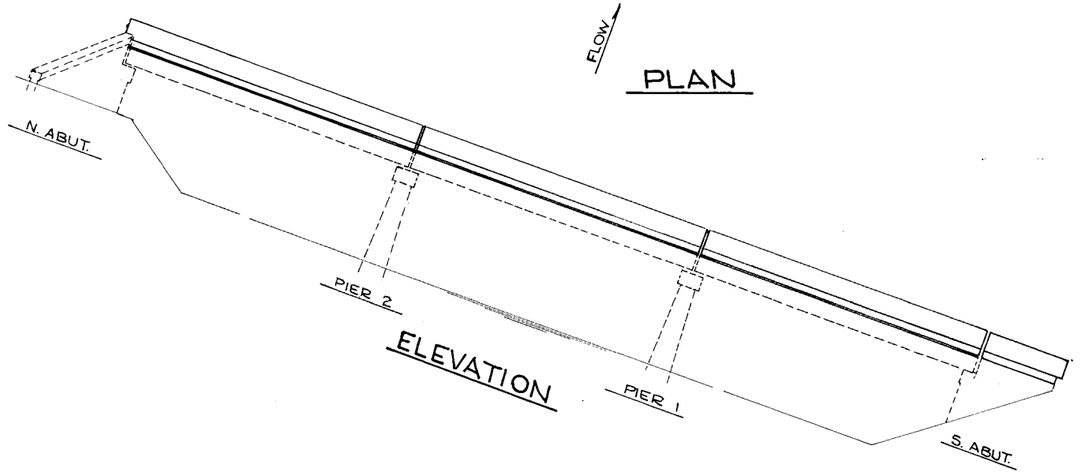


FLOW

PLAN



ELEVATION

CONSTRUCTION NOTES

THE MINNESOTA HIGHWAY DEPARTMENT "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED APRIL 1, 1976 SHALL GOVERN.

THE FIRST DIGIT OR THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR SIZE.

NO CUTTING WILL BE PERMITTED UNTIL THE CUTTING LIMITS HAVE BEEN OUTLINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. REMOVAL AND RECONSTRUCTION SHALL CONFORM TO M.H.D. 2433.

THE ENGINEER WILL SET A PROFILE GRADE IN THE FIELD WHICH WILL BE APPROXIMATELY 3 INCHS ABOVE THE EXISTING PROFILE.

BARS MARKED WITH THE SUFFIX "E" OR PREFIX "R" SHALL BE EPOXY COATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

DESIGN DATA

INPLACE BRIDGE BUILT 1939
RATING WITH NEW DECK (INCLUDES W.C.)
INVENTORY (f_s = 16500) HS 21.6
OPERATING (f_s = 21950) HS 34.4

MAXIMUM ALLOWABLE DESIGN STRESSES:
(NEW CONSTRUCTION)
f'_c = 4000 P.S.I. n = 8
f_y = 60000 P.S.I. REINFORCEMENT
f_y = 36000 P.S.I. M.H.D. 3306

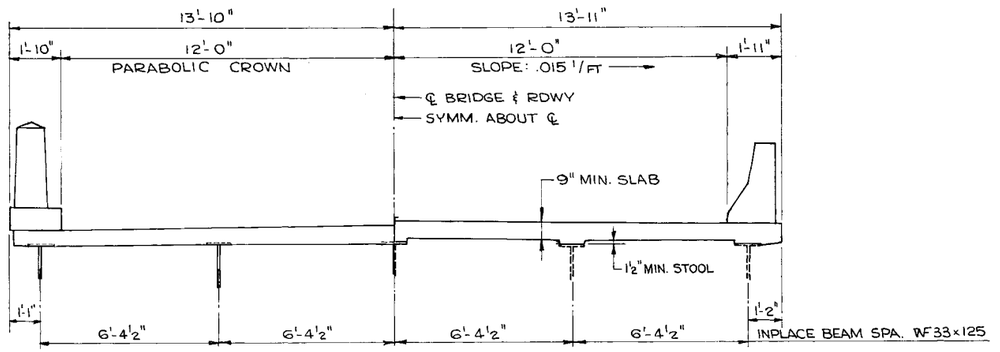
DECK AREA: 4237 SQ. FT.

LIST OF SHEETS

NO	DESCRIPTION
1	GENERAL PLAN & ELEVATION
2	NORTH ABUTMENT DETAILS
3	SOUTH ABUTMENT DETAILS
4	SUPERSTRUCTURE DETAILS
5	SUPERSTRUCTURE DETAILS
6	DECK PLAN
7	CONCRETE RAILING (TYPE G)
8	WATERPROOF EXPANSION DEVICE
9	GUARDRAIL TREATMENT AT BRIDGES

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
2401.541	REINFORCEMENT BARS	POUND	13040
2401.541	REINFORCEMENT BARS (EPOXY COATED)	POUND	17790 (P)
401.605	DECK SLAB CONCRETE, MIX NO. 3X33	SQ. FT.	4237 (P)
401.606	TYPE G RAILING CONCRETE, MIX NO. 3X46A	LIN. FT.	306 (P)
104.601	REMOVE CONCRETE DECK	LUMP SUM	ONE
402.601	EXPANSION JOINT DEVICE, TYPE 2.0	LIN. FT.	77 (P)
2402.521	STRUCTURAL STEEL (3306)	POUND	820 (P)
2554.501	T BARRIER DESIGN B8307	LIN. FT	400
554.607	TWISTED END TREATMENT	EACH	4
2477.501	ZINC-RICH PAINT SYSTEM	LUMP SUM	ONE



HALF TRANSVERSE SECTION OF INPLACE BRIDGE

HALF TRANSVERSE SECTION OF RECONSTRUCTION

PLANS PREPARED BY
ERICKSON ENGINEERING CO.
3340 REPUBLIC AVE
ST. LOUIS PARK MINN. 55426

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNED: Robert R. Tomczak

DATE 7-7-77 REG. NO. 6924

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5877

C.R 19 OVER ROOT RIVER

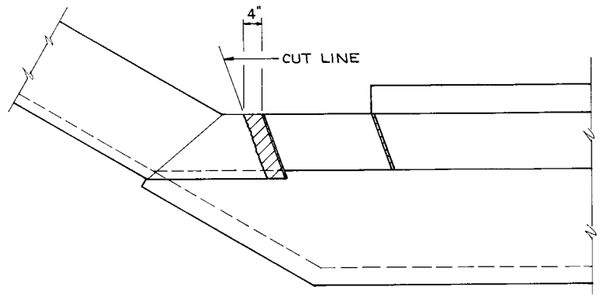
NEW DECK CONSTRUCTION

GENERAL PLAN AND ELEVATION

SEC. 13 T 105 N R 13 W
PLEASANT GROVE TOWNSHIP
OLMSTED COUNTY

APPROVED COUNTY HIGHWAY ENGINEER

DES: RRT	DR: GF	5877
CHK:	CHK: RRT	

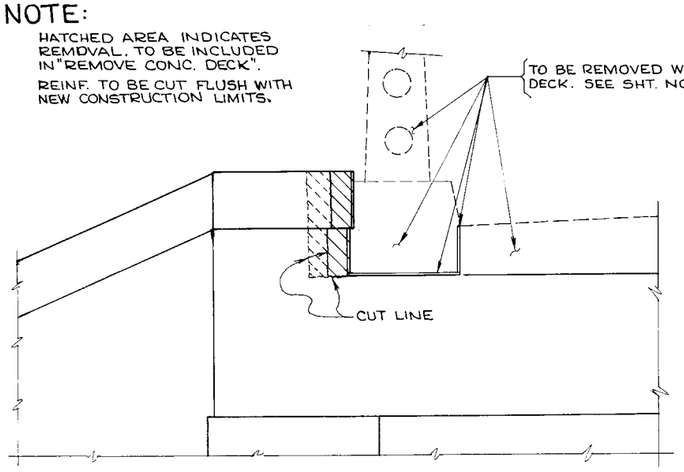


PLAN

NOTE:

HATCHED AREA INDICATES REMOVAL. TO BE INCLUDED IN "REMOVE CONC. DECK".

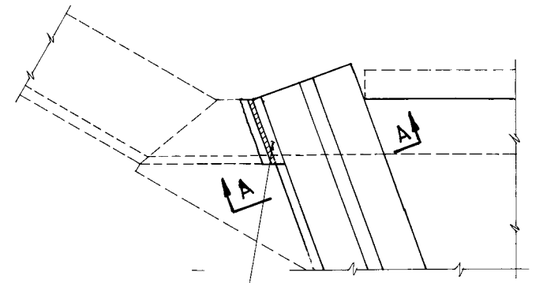
REINF. TO BE CUT FLUSH WITH NEW CONSTRUCTION LIMITS.



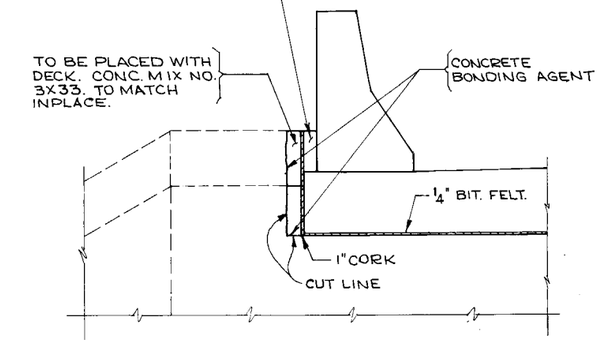
ELEVATION

INPLACE ~ NORTH ABUTMENT

N.W. CORNER SHOWN ~ N.E. CORNER SIMILIAR



PLAN

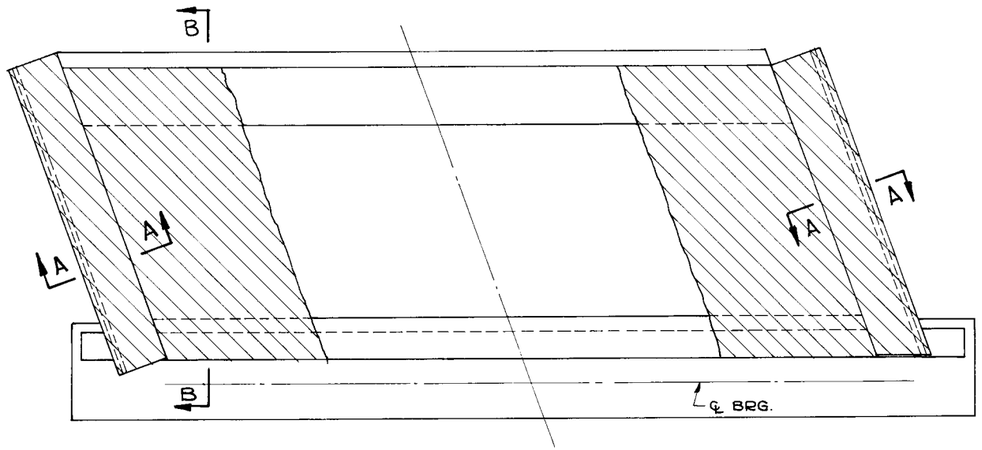


SECTION "A-A"

PROPOSED ~ NORTH ABUTMENT

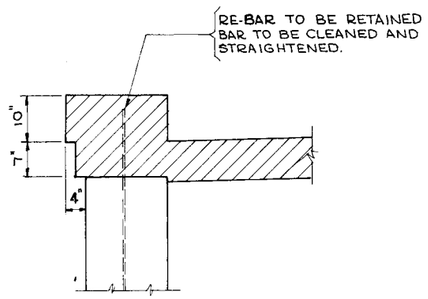
N.W. CORNER SHOWN ~ N.E. CORNER SIMILIAR.

NORTH ABUTMENT DETAILS	DES: RRT	DR: GE	APPROVED:	BRIDGE NO. 5877
	CHK:	CHK: RRT		
	SHEET NO. 2 OF 9 SHEETS			

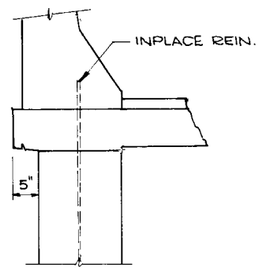


NOTE:
HATCHED AREA INDICATES REMOVAL

PLAN
RAILPOSTS NOT SHOWN

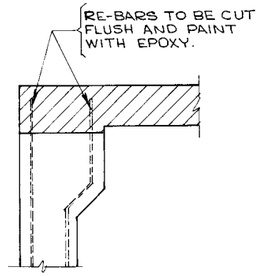


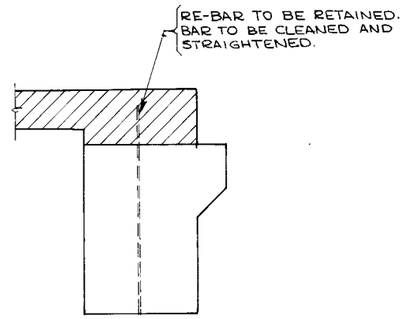
INPLACE



PROPOSED

SECTION A-A

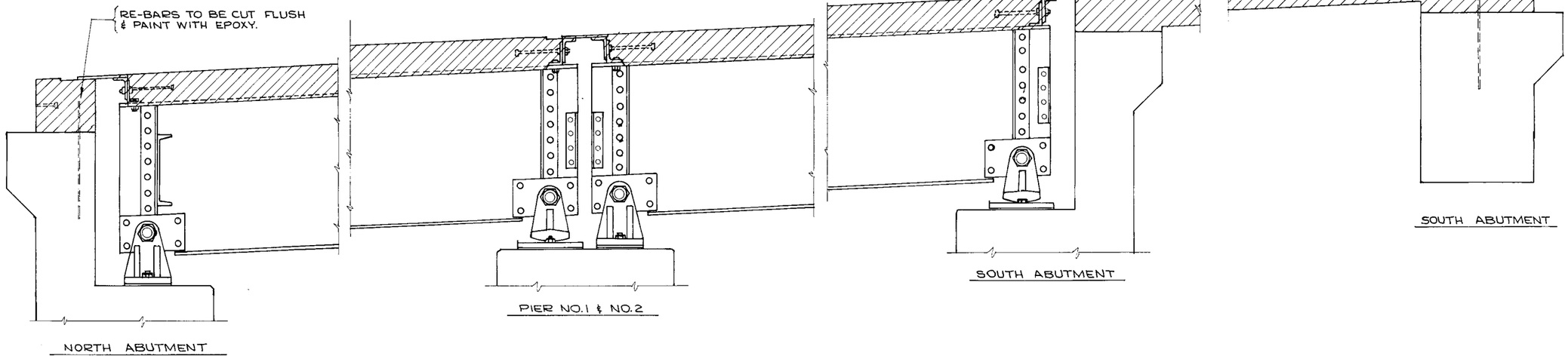




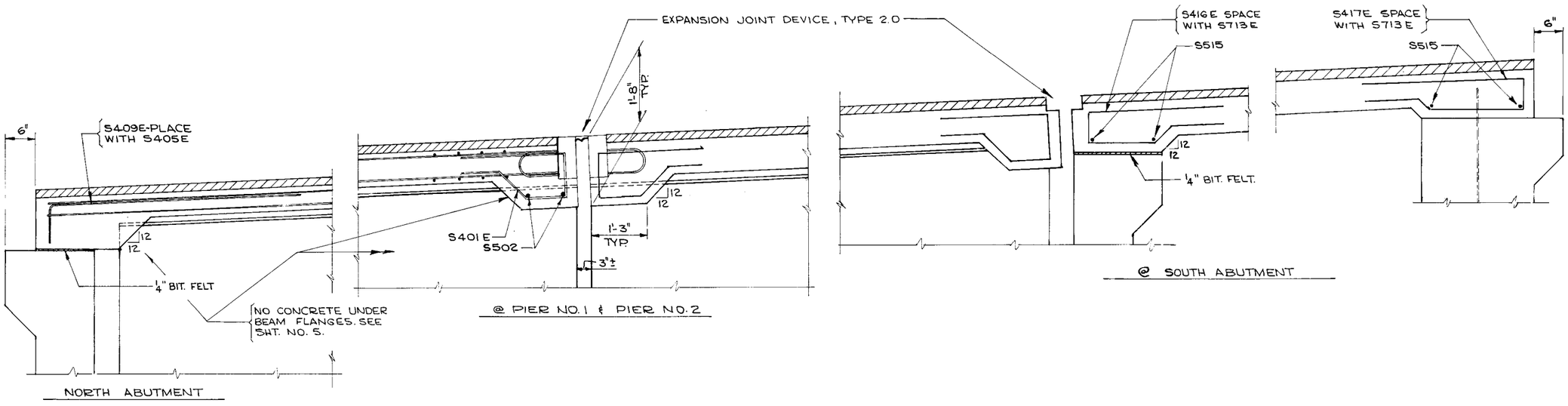
SECTION B-B

SOUTH ABUTMENT DETAILS	DES: RRT	DR: GF	APPROVED:	BRIDGE NO. 5877
	CHK:	CHK: RRT		
	SHEET NO 3 OF 9 SHEETS			

NOTE:
HATCHED AREA INDICATES REMOVAL.



INPLACE ~ PART LONGITUDINAL SECTION



PROPOSED ~ PART LONGITUDINAL SECTION

SUPERSTRUCTURE DETAILS	DES: RRT	DR: GF	APPROVED:	BRIDGE NO. 5877
	CHK:	CHK: RRT		
	SHEET NO. 4 OF 9 SHEETS			

SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE

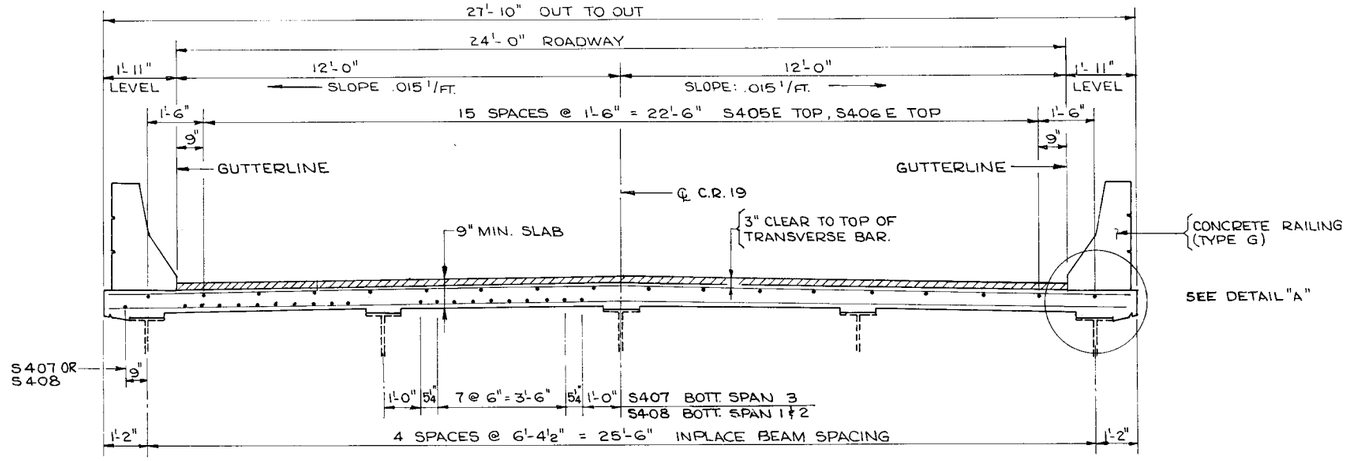
(1)	DECK SLAB CONCRETE, MIX NO. 3X33	4237 SQ.FT.
(3)	TYPE G RAILING CONCRETE, MIX NO. 3X46A	306 LIN.FT.
	REINFORCEMENT BARS	13040 POUND
(4)	REINFORCEMENT BAR (EPOXY COATED)	17790 POUND
	STRUCTURAL STEEL (330G)	820 POUND
	EXPANSION JOINT DEVICE, TYPE 2.0	77 LIN. FT.
(5)	NAME PLATE (RESET)	2 EACH
(5)	PREFORMED JOINT FILLER (SEE LIST SHT. NO.6)	

(1) APPROX 12.6 CU.YDS BASED ON AN AVERAGE STOOL HEIGHT OF 1½".

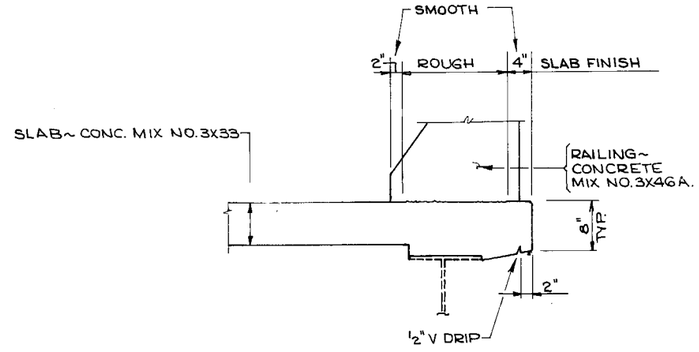
(3) APPROX VOL. 38 CU.YDS.

(4) INCLUDES RAILING BARS (PREFIX R) AND SUPERSTRUCTURE BARS WITH SUFFIX "E".

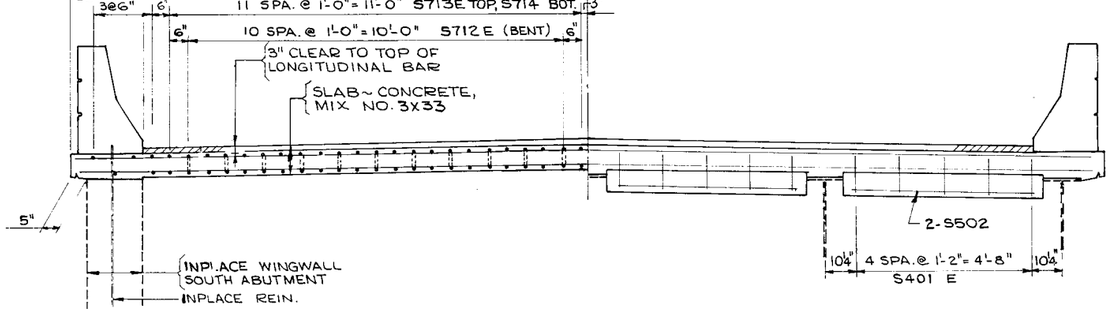
(5) INCLUDED IN PRICE BID FOR OTHER ITEMS.



TRANSVERSE SECTION THRU DECK

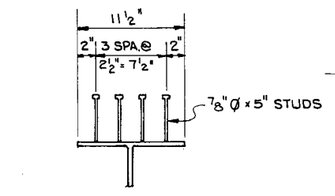


DETAIL "A"

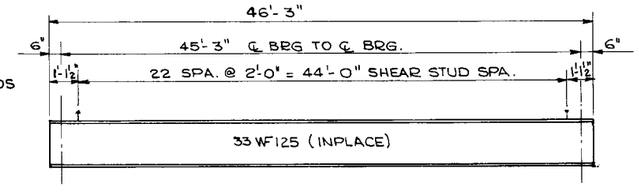


HALF TRANSVERSE SECTION THRU APPROACH PANEL

HALF TRANSVERSE SECTION NEAR PIERS, S. ABUT.



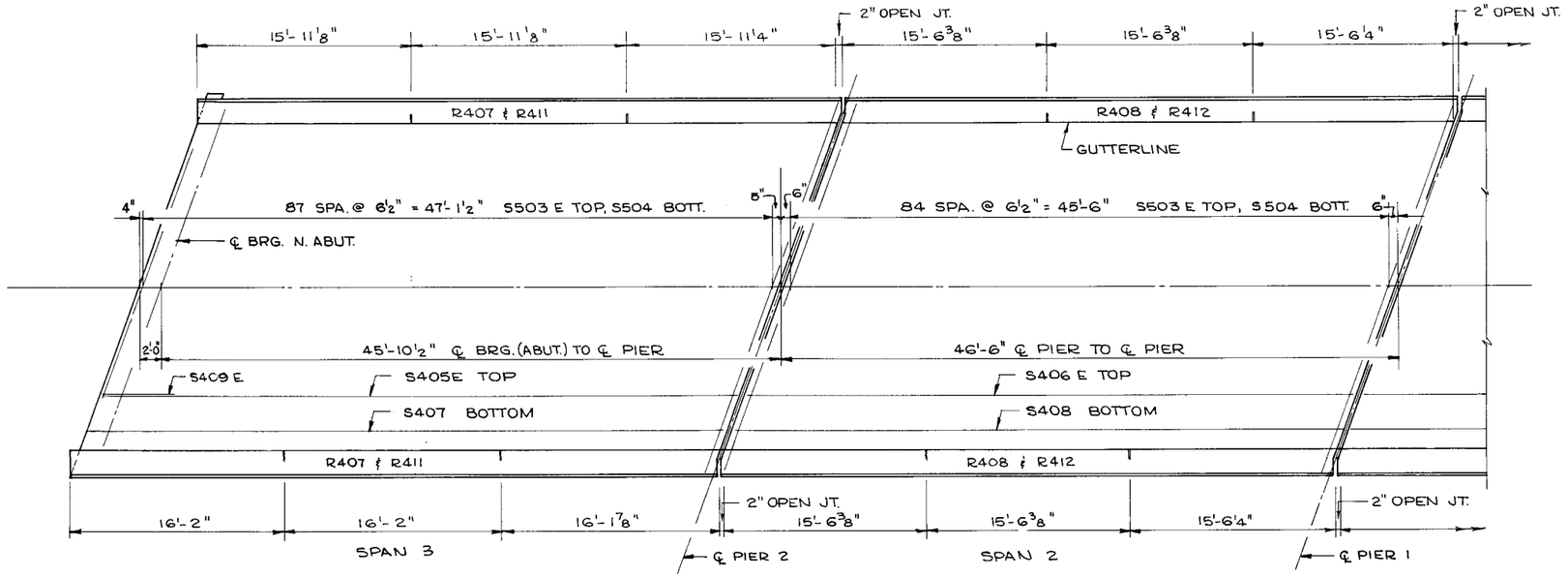
SECTION THRU BEAM



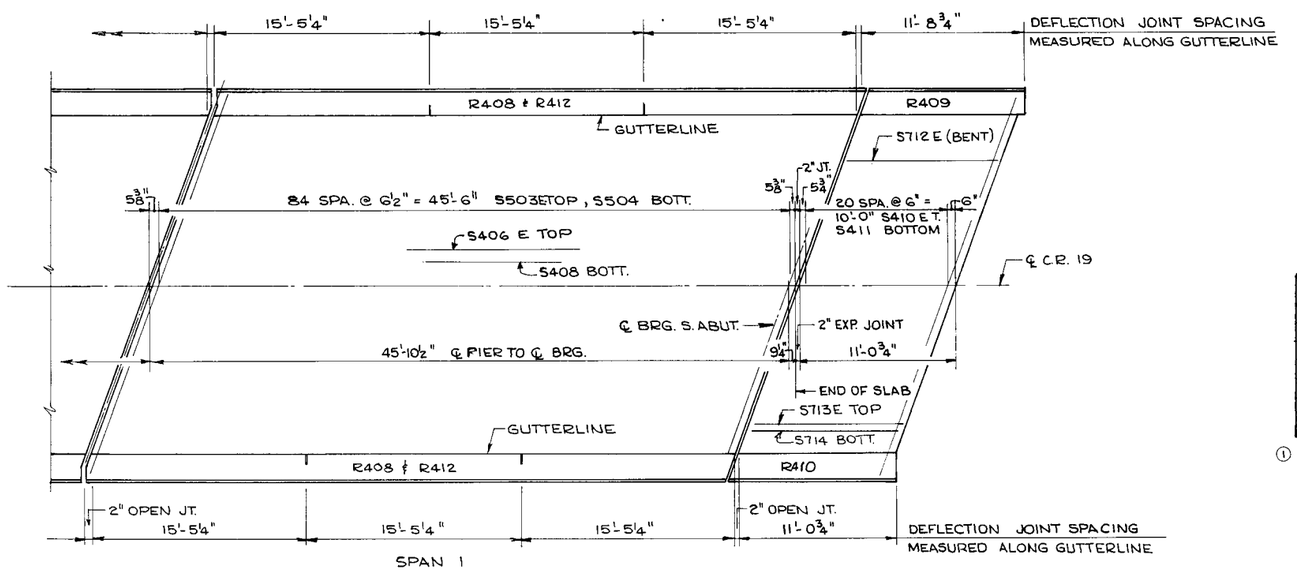
BEAM ELEVATION

SHEAR CONNECTORS

SUPERSTRUCTURE DETAILS	DES: RRT	DR: GW	APPROVED:	BRIDGE NO. 5877
	CHK:	CHK: RRT		
	SHEET NO. 5 OF 9 SHEETS			

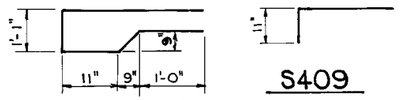


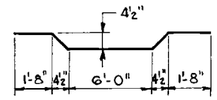
PLAN



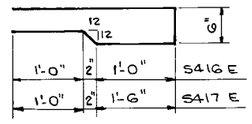
BILL OF REINFORCEMENT FOR SUPERSTRUCTURE

BAR	NO	LENGTH	SHAPE	LOCATION
S401 E	100	6'-9"		℄ EXP. JT. PIER 1, 2 & S.A.
S502	40	4'-11"		" " " " " " "
S503 E	257	29'-1"		SLAB ~ TRANSV.
S504	257	29'-1"		" "
S405E	18	47'-5"		" LONGIT.
S406 E	36	46'-1"		" "
S407	42	47'-5"		" "
S408	84	46'-1"		" "
S409E	18	8'-0"		SLAB, LONG. ~ N. ABUT.
S410E	21	29'-1"		SLAB (APPROACH. S.A.)
S411	21	29'-1"		" "
S712 E	22	10'-4"		" "
S713E	30	10'-6"		" "
S714	28	10'-6"		" "
S515	4	27'-0"		" "
S416E	30	4'-9"		" "
S417E	30	5'-9"		" "





S712 E



LIST OF PREFORMED JOINT FILLER ①

NO	SIZE	TYPE	LOCATION
1	1/4" x 1'-0" x 30'-0"	BIT. FELT	N. ABUT.
2	1" x 1'-5" x 1'-9"	CORK	N. ABUT.
1	1/4" x 1'-0" x 30'-0"	BIT. FELT	S. ABUT.
12	1" x 1'-5" x 1'-0"	CORK	DEFLECTION JT. RAIL

① SEE SPECIAL PROVISIONS.

DECK PLAN

DES: RRT	DR: GF	APPROVED:	BRIDGE NO.
CHK:	CHK: RRT		5877
SHEET NO. 6 OF 9 SHEETS			

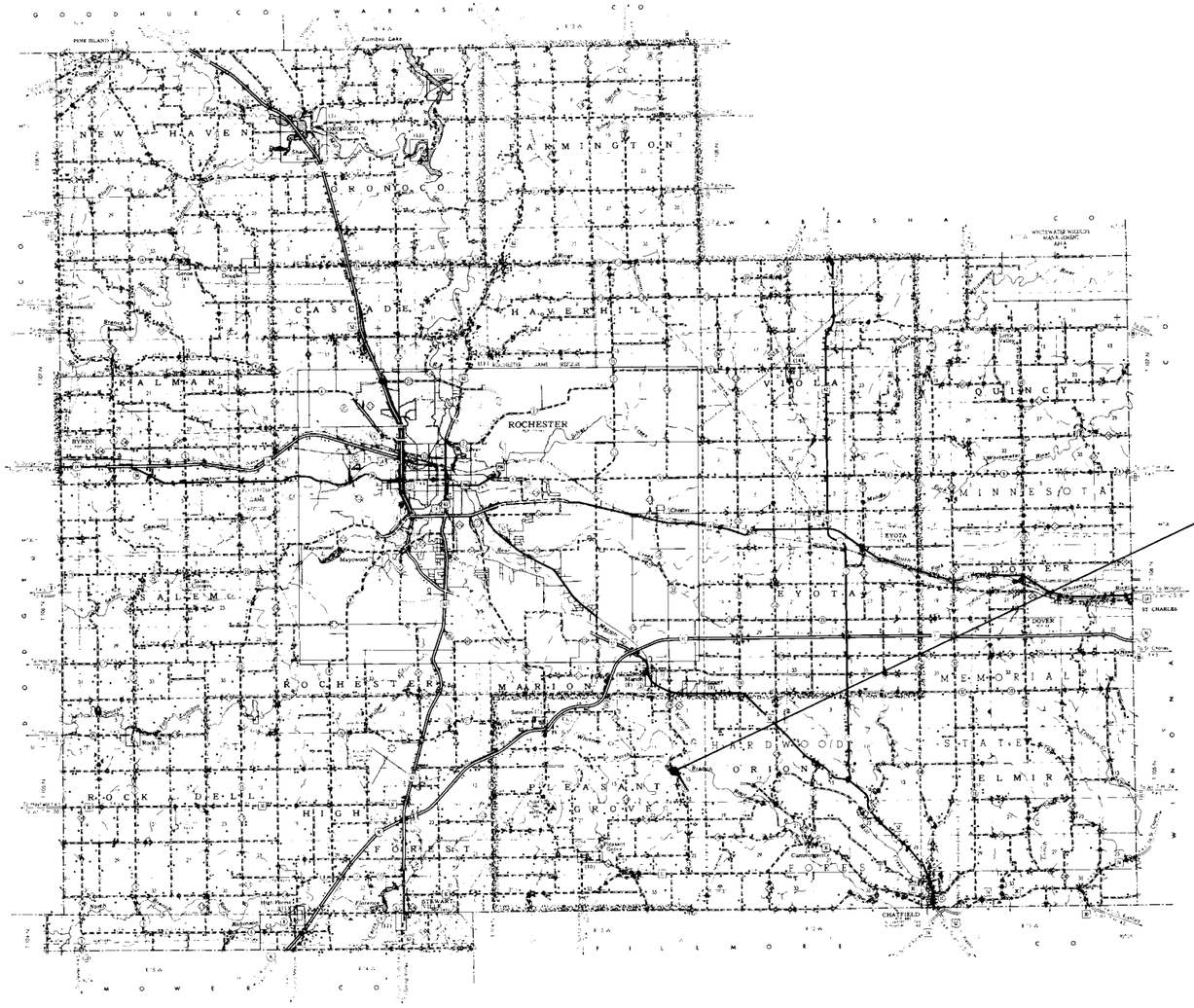
FORM 100-A '65

PLANS SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT-OF-WAY LINE
RIVER OR CREEK (NAME)
DRY RUN
DRAINAGE DITCH (SIZE)
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE OR METAL)
WOODEN HUB
GRAVEL PIT G
SAND PIT S
BORROW PIT B
ROCK QUARRY Q

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN G
WATER MAIN I
CONDUIT
TELEPHONE CABLE IN CONDUIT T
ELECTRIC CABLE IN CONDUIT P
TELEPHONE MANHOLE T
ELECTRIC MANHOLE P
BURIED TELEPHONE CABLE T-BUR
BURIED ELECTRIC CABLE P-BUR
AERIAL TELEPHONE CABLE T-AE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE



Fed. Proj. No.

STATE OF MINNESOTA

DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR Bridge Redecking

COUNTY STATE AID HIGHWAY NO. 19

BETWEEN T.H. 30 **AND** T.H. 52

AT 221.81' East and 4602.21' Northerly of the 1/16 Corner N.W. 1/4
(Give proper reference to Sections, Township and Range)
Sec. 24 T. 105 N. R. 13 W.

	FEET	MILES
GROSS LENGTH		
BRIDGES-LENGTH	152.25	FEET 0.029 MILES
EXCEPTIONS-LENGTH		FEET MILES
NET LENGTH	152.25	FEET 0.029 MILES

INDEX OF SHEETS

Sheet No 1 Title Sheet & Layout Map
" No 1. to 9. Bridge Sheets.

DESIGN SPEED M. P. H.

PROJECTED A. D. T.

TON DESIGN

SOIL FACTOR

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

J K Dolan COUNTY ENGINEER DATE 7-18-77

Olmsted COUNTY REG NO. 10219

RECOMMENDED FOR APPROVAL _____ DISTRICT STATE AID ENGINEER 19__

RECOMMENDED FOR APPROVAL _____ 19__

APPROVED _____ 19__ _____ STATE AID ENGINEER

— SPECIFICATIONS —
MINNESOTA HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1972
AS AMENDED BY SUPPLEMENTAL SPECIFICATIONS DATED APRIL 1, 1976, SHALL GOVERN.

Minn. Project No. _____ S.A.P. _____ State Project No. _____

OLMSTED County, Minnesota. County Proj. No. C77-19-12 **Plan No.** _____ Sheet 1 of 9 Sheets