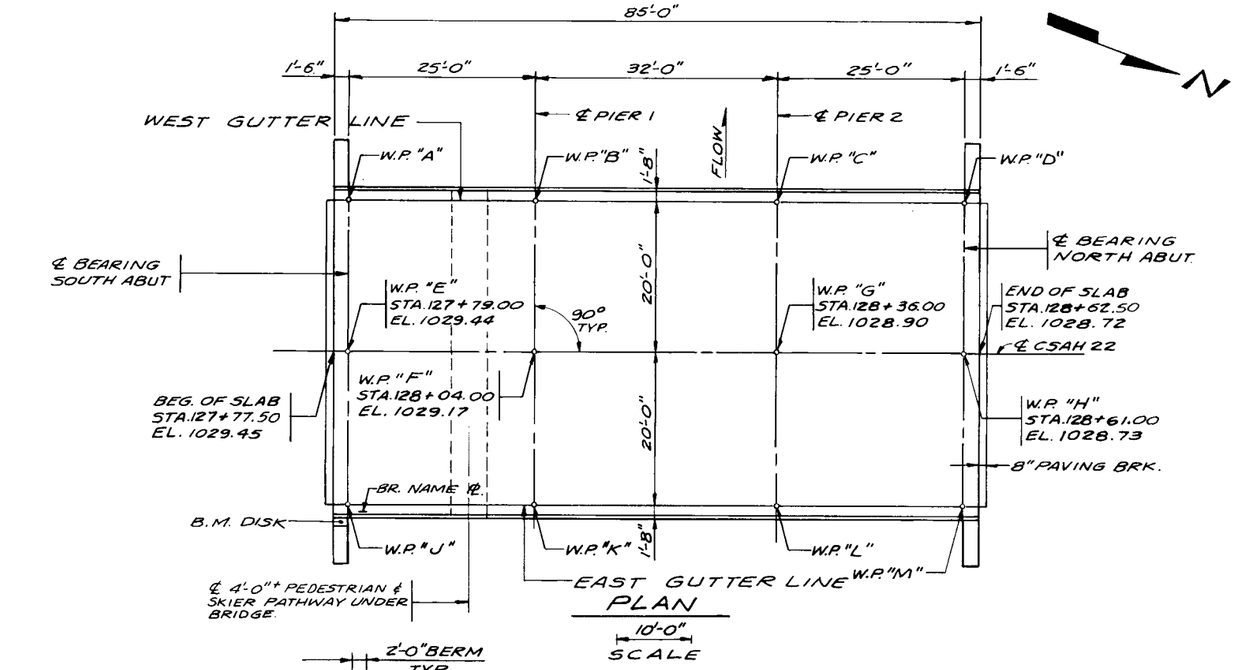
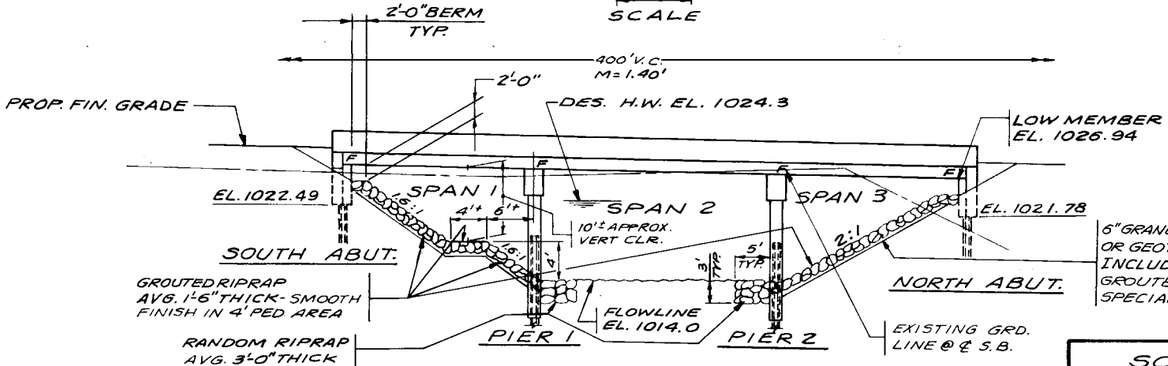
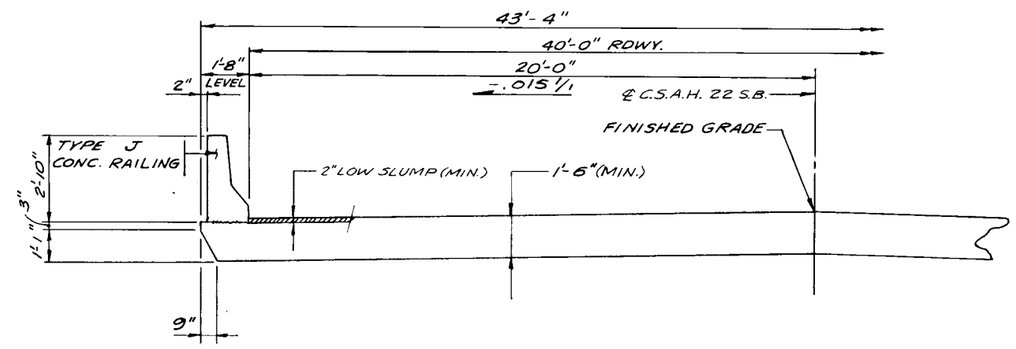






DESIGN DATA

1983 & INTERIM. A.A.S.H.T.O. DESIGN SPECS.
LOAD FACTOR DESIGN METHOD
HS 20 LOADING - INCLUDES 17 P.S.F. DEAD LOAD ALLOWANCE FOR FUTURE WEARING COARSE MODIFICATIONS.
REINFORCED CONCRETE:
f_y = 60,000 P.S.I. REINF. (GRADE 60)
f_c = 4000 P.S.I. n = 8
STRUCTURAL STEEL:
f_y = 36,000 P.S.I. SPEC. 3306
DECK AREA = 3683 SQ. FT.
CURRENT A.D.T. = NONE
PROJ. A.D.T. FOR YR. 2006 = 5,197 (*)

(*) SOURCE: COMPUTERIZED TRAFFIC ANALYSIS BY MINN. DEPT. OF TRANSPORTATION AND OLMSTED COUNTY CONSOLIDATED PLANNING DEPARTMENT.

CONSTRUCTION NOTES

THE 1983 EDITION OF THE MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

LIST OF SHEETS

NO.	TITLE
1	GENERAL PLAN & ELEVATION
2	BRIDGE LAYOUT
3	ABUTMENT DETAILS
4	PIER DETAILS
5 & 6	SUPERSTRUCTURE DETAILS
7	CONCRETE RAILING DETAILS
8 & 9	DETAILS
10	BRIDGE SURVEY
11	BRIDGE SURVEY PLAN & PROFILE

NOTES:
ABUTMENT PILING TO BE HP10X42 STEEL H PILING.
PIER PILING TO BE HP10X42 STEEL H PILING ENCASED IN STEEL SHELL (16"ϕ) PILE SHELLS 18' LONG.

B. M. EL. 1017.334
(M.S.L. 1929 ADJ.)
STD. DISK 1/8 MILE WNW OF BR. SITE

SCHEDULE OF QUANTITIES FOR ENTIRE BRIDGE

	ITEM NO.	ITEM	QUAN.	UNIT
	2401.501	STRUCTURE CONCRETE (3Y43)	94 (P)	CU. YD.
	2401.501	STRUCTURE CONCRETE (3X36)	180 (P)	CU. YD.
	2401.501	STRUCTURE CONCRETE (3X46A)	19 (P)	CU. YD.
	2401.541	REINFORCEMENT BARS	25185 (P)	POUND
	2402.546	FLOOR DRAINS, TYPE I	8	EACH
(1)	0452.604	16" STEEL PILE SHELLS	252	LIN. FT.
	2452.510	STEEL H-PILING DRIVEN, 10"	600	LIN. FT.
	2452.511	STEEL H-PILING DELIVERED, 10"	600	LIN. FT.
	2452.520	STEEL H-TEST PILES, 40' LONG, 10"	4	EACH
(1)	0452.602	PILE TIP PROTECTION, 10"	24	EACH
(2)	0401.601	STRUCTURE EXCAVATION	1	LUMP SUM
	2511.501	RANDOM RIPRAP, CLASS III	67	CU. YD.
	2442.501	REMOVE OLD BRIDGE	1	LUMP SUM
	2021.501	MOBILIZATION	1	LUMP SUM
	2511.507	GROUTED RIPRAP	200	CU. YD.
	2404.501	CONCRETE OVERLAY, 3U17A	3400 (P)	SQ. FT.
	2401.541	REINFORCEMENT BARS (EPOXY COATED)	22665 (P)	POUND

(1) SEE SPECIAL PROVISIONS

APPROVED:
5/29/86 DATE
Michael J. Sheeran
COUNTY ENG'R. OLMSTED COUNTY

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION & THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Robert R. Tonseth
DATE 6-3-86 REG. NO. 6924

PLANS PREPARED BY
ERICKSON ENGINEERING
3338 REPUBLIC AVE.
ST. LOUIS PARK, MN. 55426

CSAH #22 OLMSTED COUNTY
MINNESOTA DEPARTMENT OF TRANSPORTATION

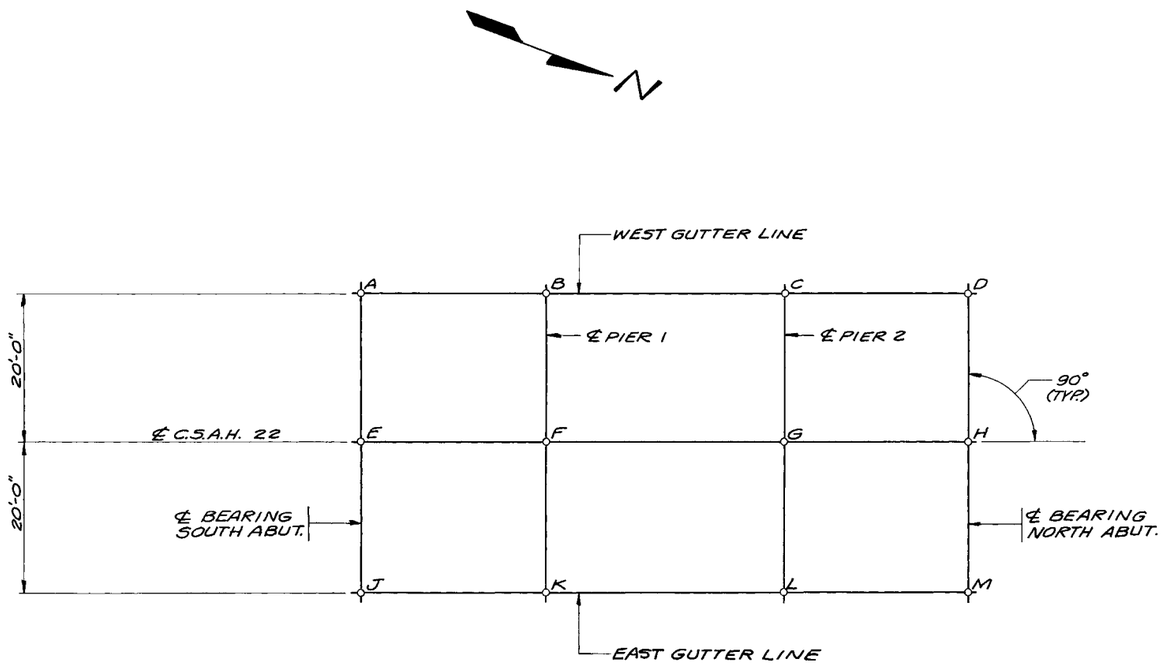
BRIDGE NO. 55548

0.5 MI. NW OF T INTERSECTION C.S.A.H. 9 & C.S.A.H. 22 OVER SILVER CREEK
25'-32'-25' CONCRETE SLAB
40'-0" RDWY. IDENT No. 209

GENERAL PLAN AND ELEVATION
SEC. 31 T107N R13W
HAVERHILL TWP.
OLMSTED COUNTY
APPROVED:
Donald J. Flemming 10-7-86
BRIDGE ENGINEER

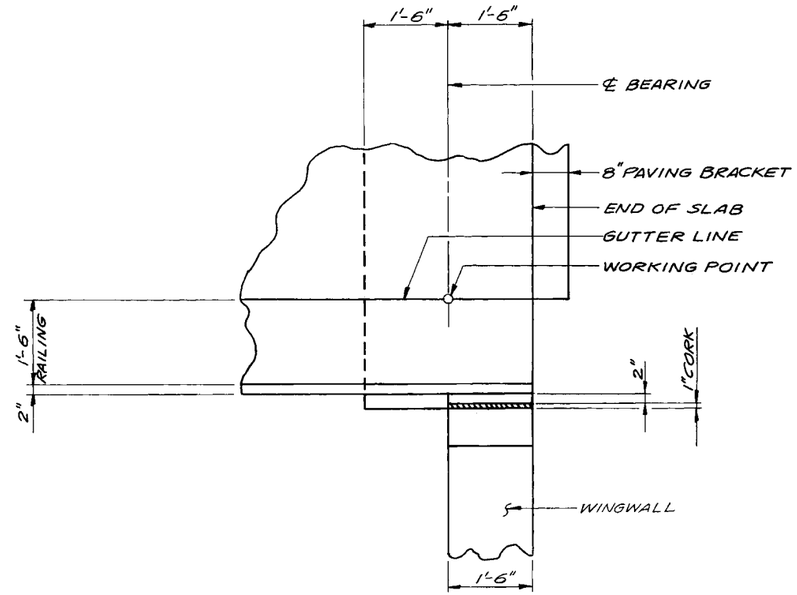
BRIDGE NO. 55548 | DRAWN: BRA | CHECK: RRT

S.A.P. NO. 55-622-06



LAYOUT SHOWING WORKING POINTS

(NO SCALE)



TYPICAL CORNER DETAIL

1'-0"
SCALE

DIMENSIONS BETWEEN WORKING POINTS

POINT	STATION	A	B	C	D	E	F	G	H	J	K	L	M
A	127+79.00		25.00			20.00	32.02	60.41			47.17	69.63	
B	128+04.00			32.00		32.02	20.00	37.74	60.41	47.17		51.23	69.63
C	128+36.00				25.00	60.41	37.74	20.00	32.02	69.63	51.23		47.17
D	128+61.00							32.02	20.00		69.63	47.17	
E	127+79.00						25.00			20.00	32.02	60.41	
F	128+04.00							32.00		32.02	20.00	37.74	60.41
G	128+36.00								25.00	60.41	37.74	20.00	32.02
H	128+61.00										60.41	32.02	20.00
J	127+79.00										25.00		
K	128+04.00											32.00	
L	128+36.00												25.00
M	128+61.00												

ELEVATIONS

TOP OF SLAB	SLAB TO BR. SEAT	BRIDGE SEAT	POINT
1029.14	1.65	1027.49	A
1028.87	1.65	1027.22	B
1028.60	1.65	1026.95	C
1028.43	1.65	1026.78	D
1029.44	1.65	1027.79	E
1029.17	1.65	1027.52	F
1028.90	1.65	1027.25	G
1028.73	1.65	1027.08	H
1028.14	1.65	1027.49	J
1028.87	1.65	1027.22	K
1028.60	1.65	1026.95	L
1028.43	1.65	1026.78	M

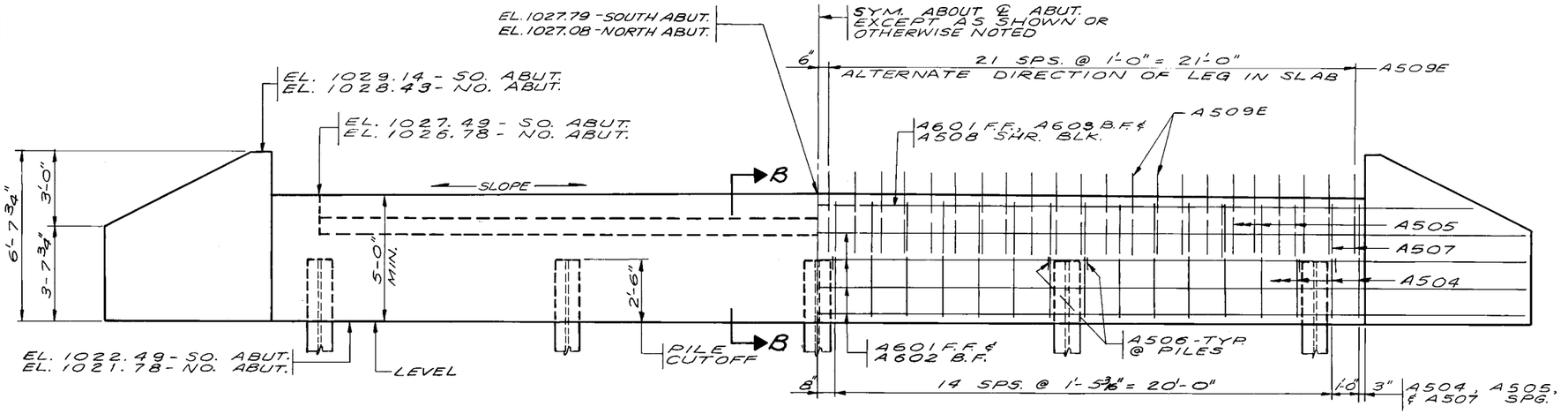
BRIDGE LAYOUT

S.A.P. No. 55-622-06

DRAWN	CHECK	APPROVED:
BRA	RRT	10-7-86

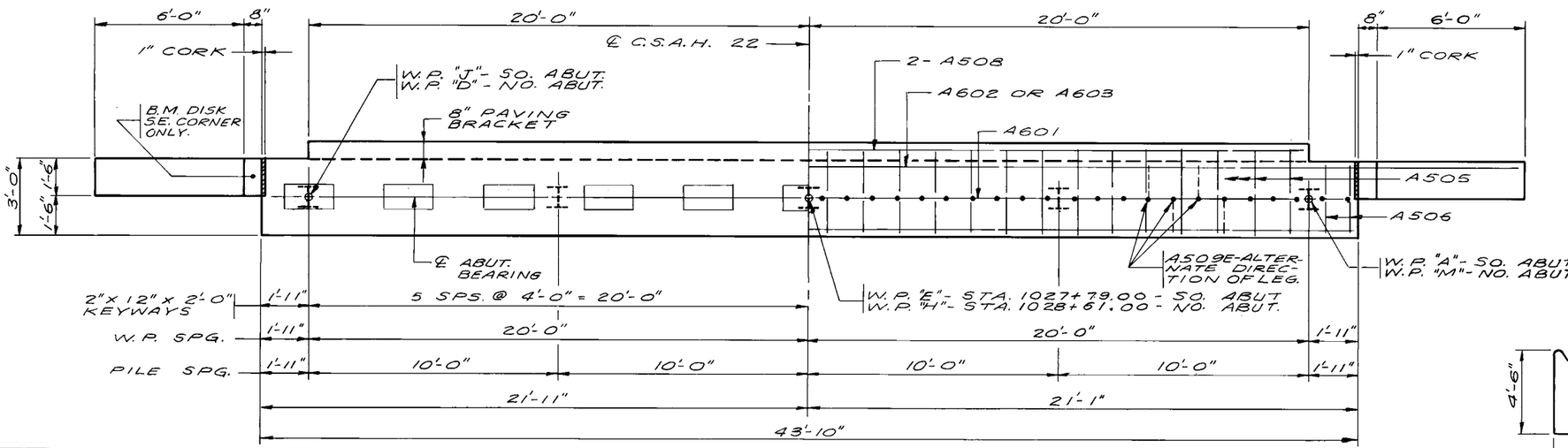
SHEET 2 OF 11 SHEETS

BRIDGE NUMBER 55548



ELEVATION

2'-0" SCALE



PLAN

2'-0" SCALE

BILL OF REINFORCECEMENT - 2 ABUTS.				
BAR	NO.	LEN.	SHAPE	LOCATION
A601	12	43'-6"	STR.	CAP - LONG.
(2) A602	16	29'-9"	"	" "
(2) A603	4	27'-6"	"	" "
A504	64	12'-7"	BENT	" - STIRRUPS
A505	56	6'-7"	"	" - TIES
A506	20	3'-8"	"	" "
A507	8	5'-11"	"	" "
A508	4	39'-8"	STR.	PAVING BRKT.
A509E	88	4'-9"	BENT	CAP TO SLAB
A510	12	9'-0"	"	WINGWALL
A511	4	9'-0"	STR.	"
A512	4	7'-0"	"	"
A513	8	2'-7"	"	"
A614	8	7'-0"	BENT	"
A515	4	6'-6"	"	"
(1) A516	12	9'-6"	STR.	"
(1) A617	12	9'-6"	"	"
A518	4	6'-4"	"	"
A619	4	6'-4"	"	"

(1) CUT 2 FROM 1
(2) 2'-3" MIN. LAP

SUMMARY OF QUANTITIES - 2 ABUTS.		
STRUCT. CONC. MIX. NO. 3Y43	60	CU. YD
REINFORCEMENT BARS	3850	POUND
(5) STRUCTURE EXCAVATION	1	LUMP SUM
STEEL H - TEST PILES 40' LONG	2	EA.
(3) STEEL H-PILING DRIVEN	240	L.F.
(3) STEEL H-PILING DELIVERED	240	L.F.
(4) BENCH MARK DISK	ONE	
(5) PILE TIP PROTECTION	10	EA.
REINFORCEMENT BARS (EPOXY COATED)	440	POUND

(3) DOES NOT INCLUDE TEST PILES.
(4) COUNTY WILL FURNISH DISK. PAYMENT FOR PLACING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS. SEE STD. PLATE 9301. FOR PLACING.
(5) SEE SPECIAL PROVISIONS.

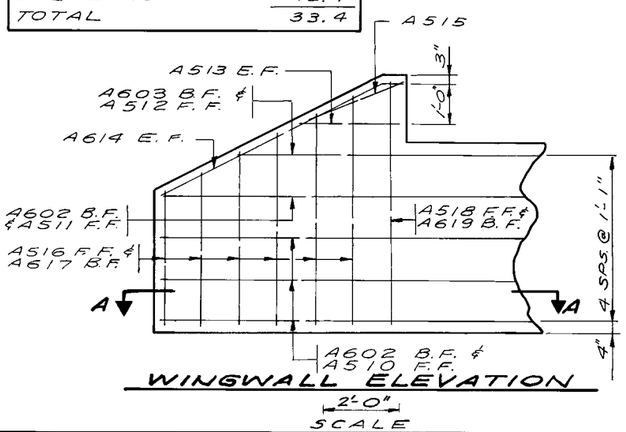
PILE NOTES

2 - STEEL HP 10X42 TEST PILES 40' LONG
8 - STEEL HP 10X42 PILES EST. LENGTH 30'
10 - STEEL HP 10X42 PILES REQ'D. FOR 2 ABUTMENTS.

FOR DETAIL OF SPLICE SEE DETAIL B202.

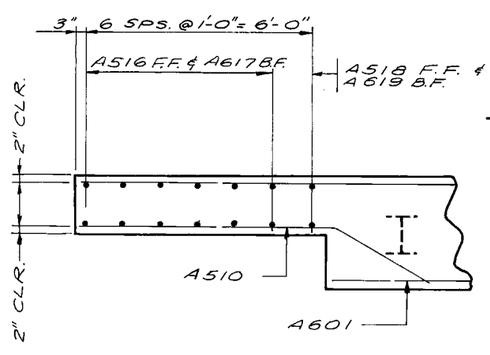
FOR TEST PILE LOCATIONS SEE SURVEY SHEET.

COMPUTED PILE LOADS - TONS PER PILE	
DEAD LOAD	21.3
LIVE LOAD	12.1
TOTAL	33.4

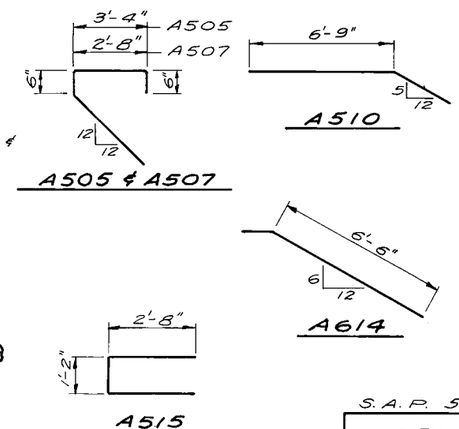


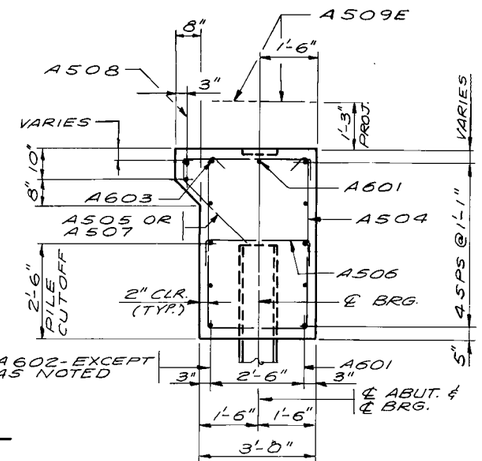
WINGWALL ELEVATION

2'-0" SCALE



SECTION A-A





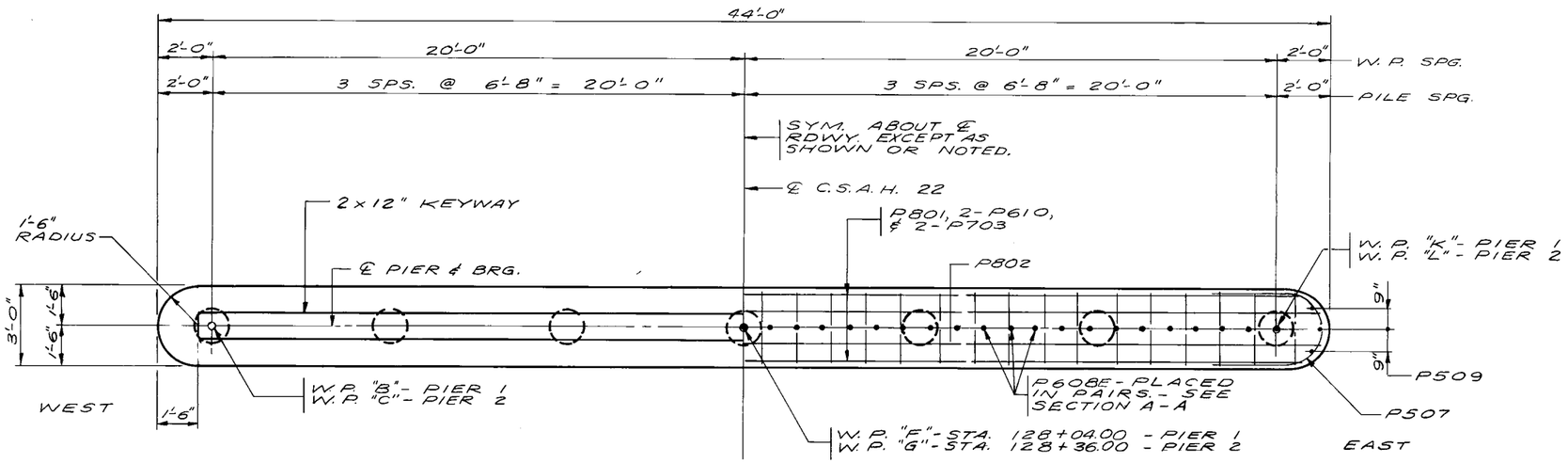
SECTION B-B

S.A.P. 55-622-06

ABUTMENT DETAILS

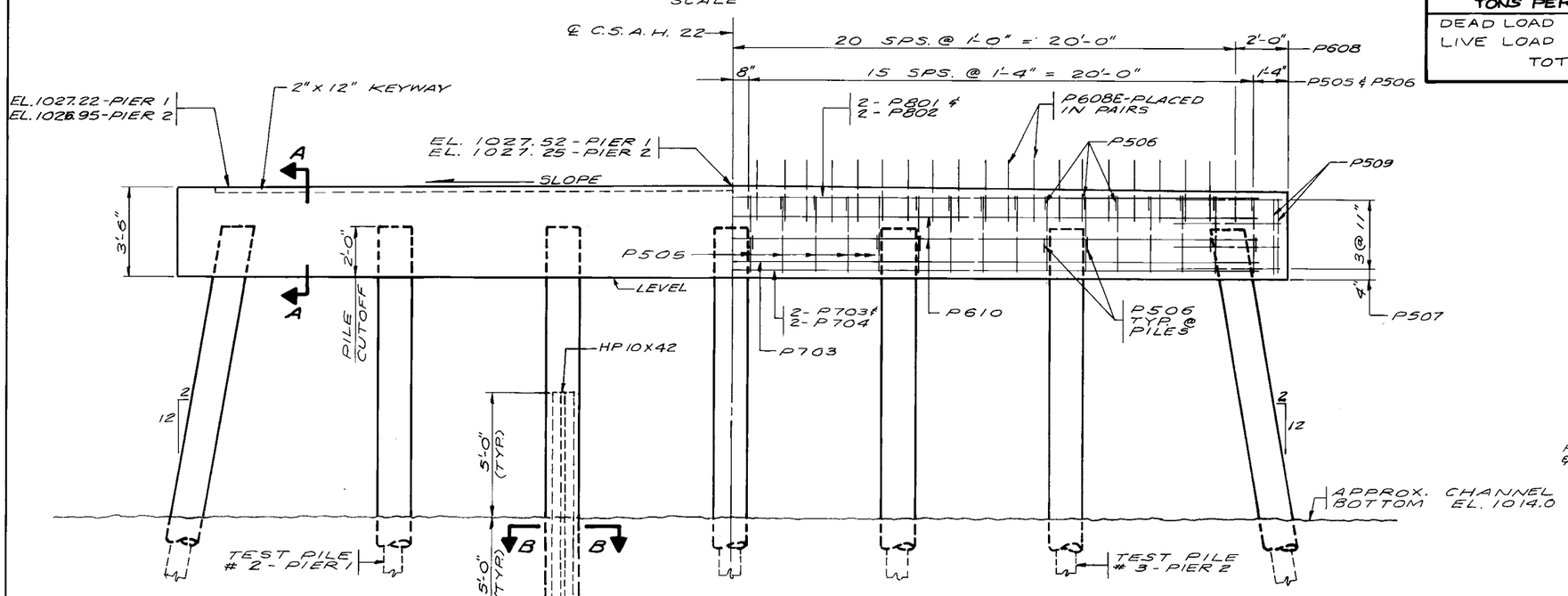
DRAWN	CHECKED	APPROVED	BRIDGE NUMBER
BRA	RRT	10-7-86	55548

SHEET 3 OF 11 SHEETS



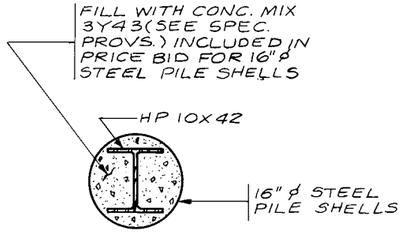
PLAN

2'-0" SCALE

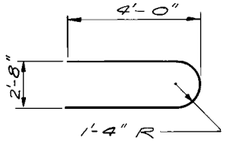


ELEVATION

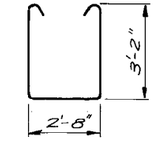
2'-0" SCALE



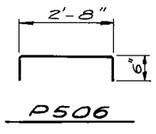
SECTION B-B



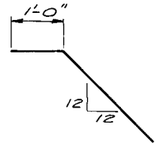
P507



P505

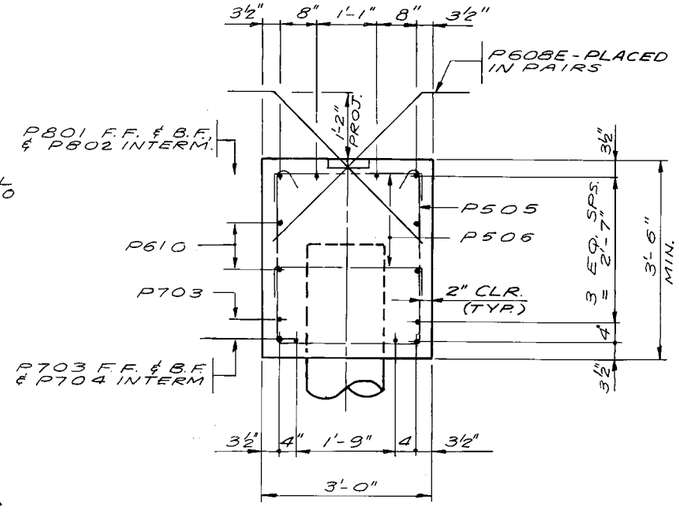


P506



P608E

S.A.P. 55-622-06



SECTION A-A

BILL OF REINFORCEMENT - 2 PIERS

BAR	NO.	LENG.	SHAPE	LOCATION
P801	4	42'-2"	STR.	CAP - LONGIT.
P802	4	43'-2"	"	" "
P703	8	42'-2"	"	" "
P704	4	43'-0"	"	" "
P505	64	9'-11"	BENT	" STIRRUP
P506	92	3'-8"	"	" TIES
P507	16	9'-6"	"	" @ ENDS
P608E	164	4'-5"	"	" DOWELS
P509	12	3'-2"	"	" @ ENDS
P610	8	42'-2"	"	" LONGIT.

SUMMARY OF QUANTITIES - 2 PIERS

	STRUCTURE CONCRETE 3Y43	34 CU. YD.
	REINFORCEMENT BARS	3670 POUND
	STEEL H-TEST PILES, 40' LONG	2 EACH
(1)	STEEL H-PILING DRIVEN	360 LIN. FT.
(1)	STEEL H-PILING DELIVERED	360 LIN. FT.
(2)	PILE TIP PROTECTION	14 EACH
(2)	STEEL PILE SHELLS 16"ϕ	252 LIN. FT.
	REINFORCEMENT BARS (EPOXY COATED)	1090 POUND

(1) DOES NOT INCLUDE TEST PILES.
(2) SEE SPECIAL PROVISIONS.

COMPUTED PILE LOADS TONS PER PILE

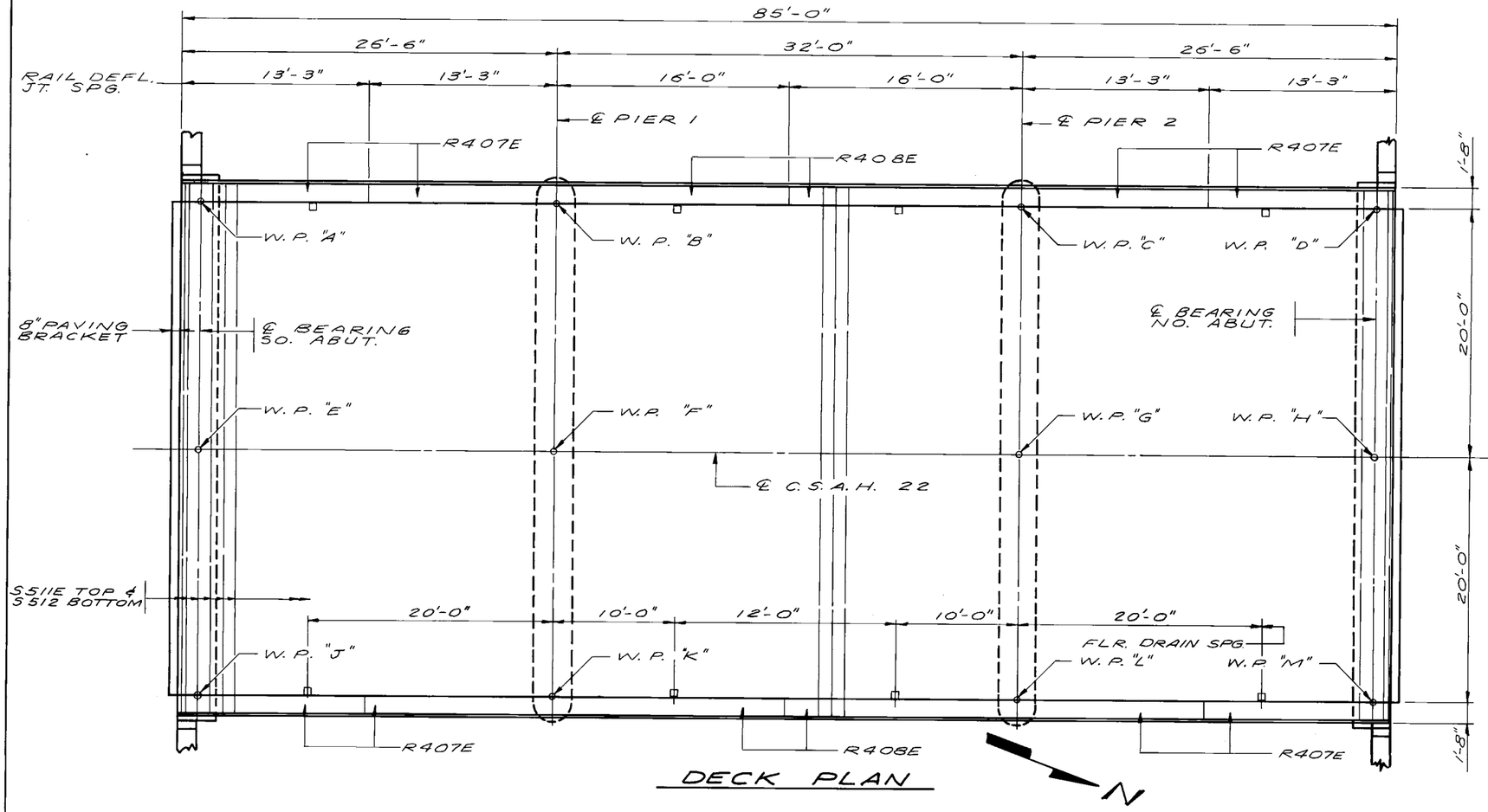
DEAD LOAD	33.9
LIVE LOAD	11.7
TOTAL	45.6

PILE NOTES

2 STEEL H-TEST PILES 40' LONG.
12 STEEL H PILES EST. LGTH. 30'.
14 STEEL H PILES REQ'D. FOR 2 PIERS.

ALL STEEL SHELLS TO HAVE A NOMINAL DIAMETER OF 16".
FOR DETAILS OF SPLICE SEE DETAIL B202.
PILE SPACING SHOWN IS AT BOTTOM OF CAP.
END PILES TO BE BATTERED 2" PER FT. IN DIRECTION SHOWN.
PAINT STEEL SHELLS PER SPEC. 2452.3J.
ALL STEEL H PILES TO BE 10X42.

PIER DETAILS	DRAWN BRA	CHECKED RRT	APPROVED 10-1-96	BRIDGE NUMBER 55548
	SHEET 4 OF 11 SHEETS			

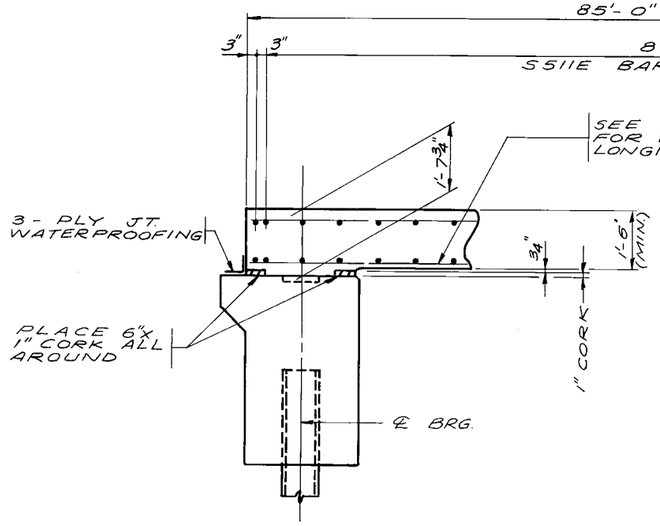


DECK PLAN

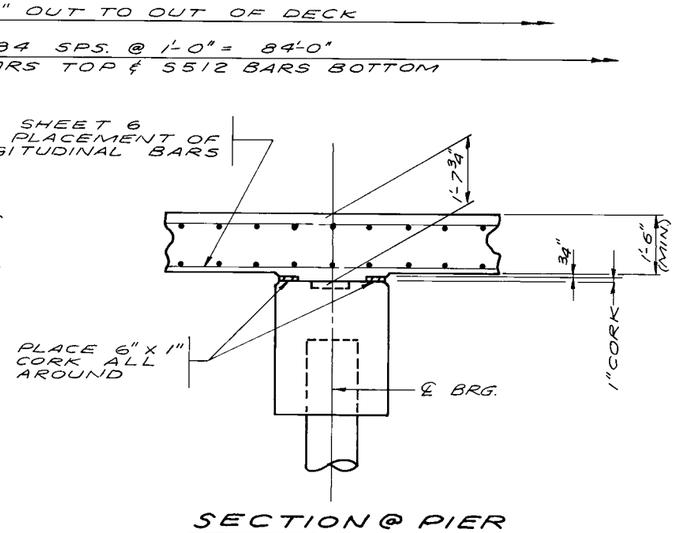
① SUMMARY OF QUANTITIES - SUPERSTR.		
STRUCTURE CONC. (3 X 36)	180	CU. YD.
STRUCTURE CONC. (3 X 46A)	19	CU. YD.
REINFORCEMENT BARS	17,665	POUND
FLOOR DRAINS, TYPE 1	8	EACH
② BRIDGE NAMEPLATE	1	EACH
②④ JOINT FILLER (SEE LIST BELOW)		
④ 3-PLY JOINT WATERPROOFING	90	L.F.
③④ CONCRETE OVERLAY (3U17A)	3,400	SQ. FT.
REINFORCEMENT BARS (EPOXY COATED)	21,155	POUND

① INCLUDES RAILING QUANTITIES.
② TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS.
③ APPROXIMATE VOLUME IS 27 CU. YARDS.
④ SEE SPECIAL PROVISIONS

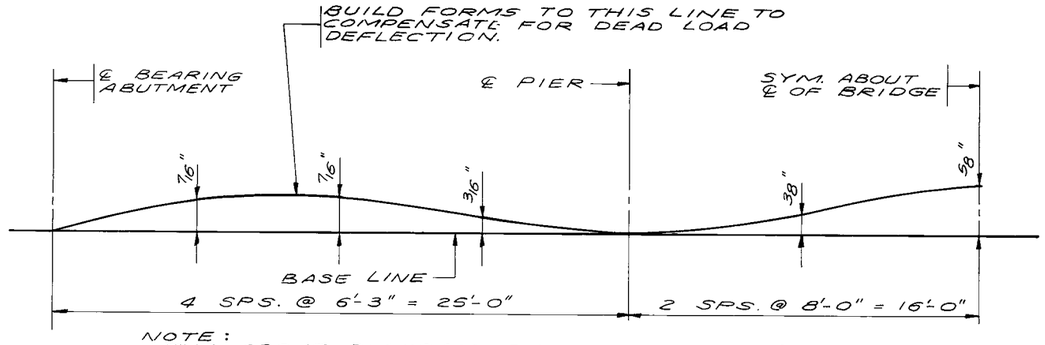
LIST OF PREFORMED CORK JOINT FILLER
4 - PCS. - 18" X 1" X 1'-8" - ABUTMENT RECESS
10 - PCS. - 11" X 1" X 1'-7" - RAIL DEFLECTION JTS.
4 - PCS. - 6" X 1" X 44'-0" - PIER CAP & SLAB
4 - PCS. - 6" X 1" X 2'-0" - " " "
4 - PCS. - 6" X 1" X 44'-0" - ABUT. CAP & SLAB
4 - PCS. - 6" X 1" X 2'-0" - " " "



SECTION @ ABUTMENT



SECTION @ PIER

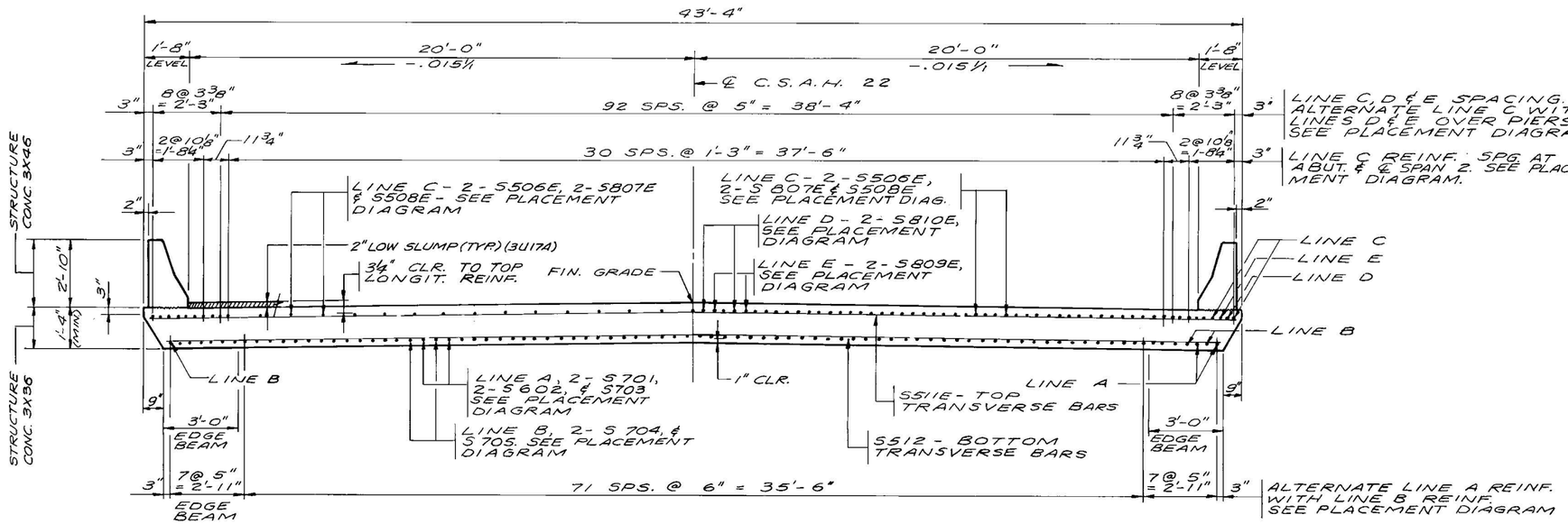


NOTE:
THE ABOVE DIAGRAM SHOWS THE CAMBER REQUIRED FOR THE ANTICIPATED ULTIMATE DEAD LOAD DEFLECTION PLUS ¼" RESIDUAL CAMBER. THESE FIGURES DO NOT INCLUDE ANY ALLOWANCE FOR SETTLEMENT OF FORMS.

CAMBER DIAGRAM

S.A.P. 55-622-06

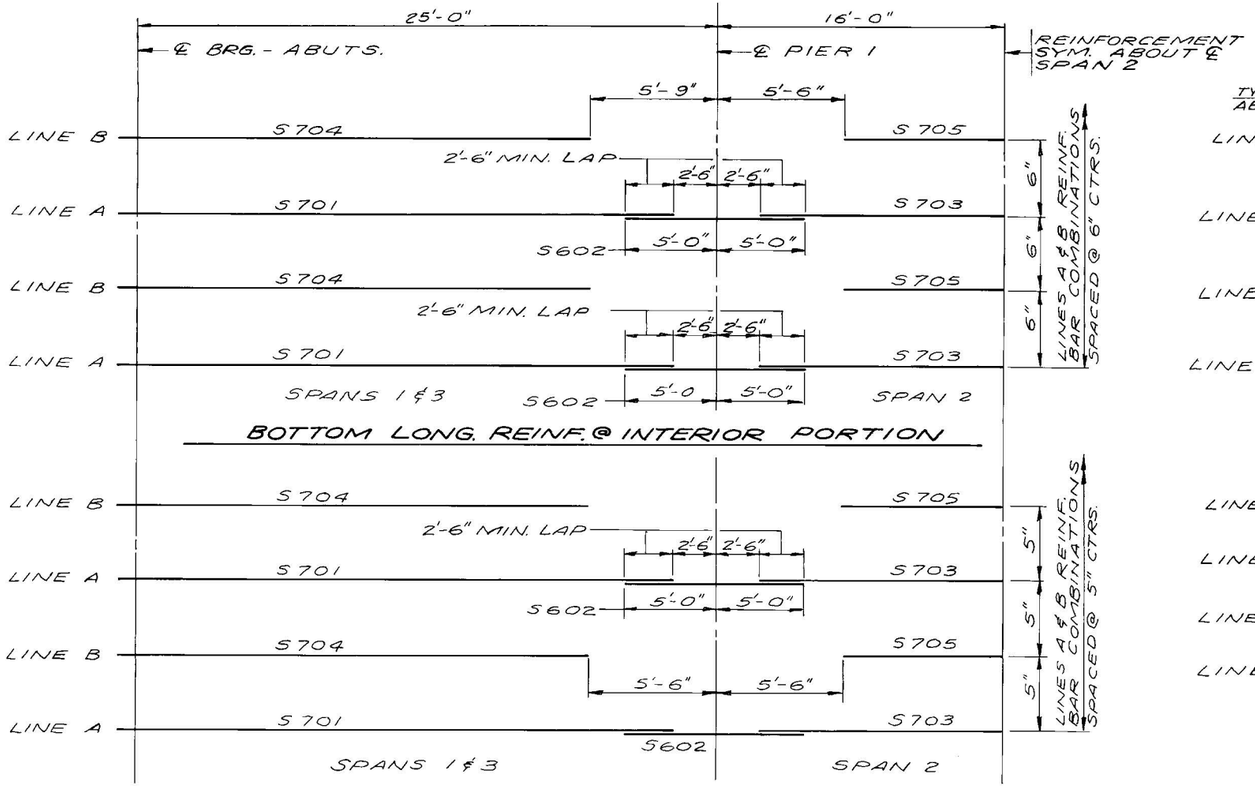
SUPERSTRUCTURE DETAILS	DRAWN: BRA	CHECKED: RRT	APPROVED 10-7-96	BRIDGE NUMBER 55548
	SHEET 5 OF 11 SHEETS			

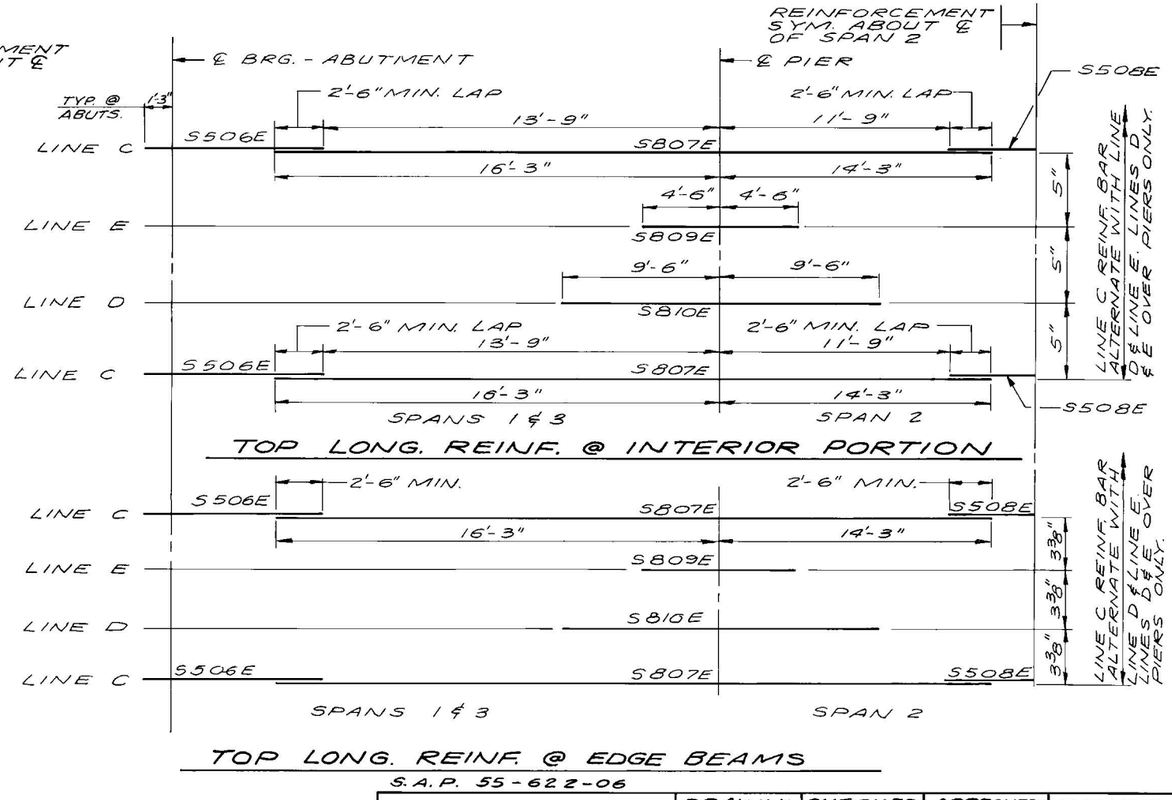


TRANSVERSE SECTION THRU DECK

BILL OF REINFORCEMENT - SUPERSTR.

BAR	NO.	LEN.	SHAPE	LOCATION
S701	86	23'-9"	STR.	SLAB - BOT. LONGIT.
S602	86	10'-0"	"	" - " "
S703	43	27'-0"	"	" - " "
S704	86	20'-6"	"	" - " "
S705	43	21'-0"	"	" - " "
S506E	74	12'-6"	"	" - TOP LONGIT.
S807E	74	30'-6	"	" " "
S508E	37	8'-6"	"	" " "
S809E	72	9'-0"	"	" " "
S810E	72	19'-0"	"	" " "
S511E	101	43'-0"	"	" - TOP TRANS.
S512	101	41'-6"	"	" - BOT. "

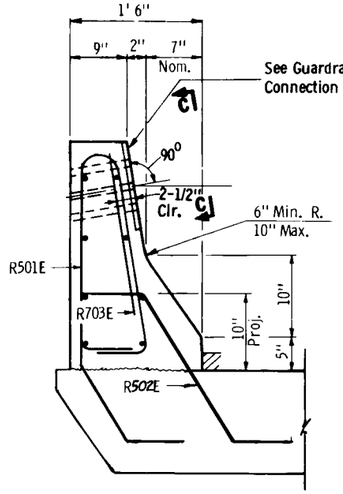


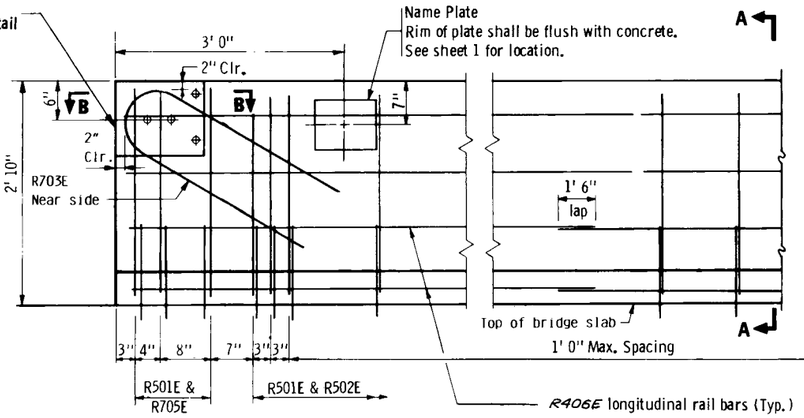


S.A.P. 55-622-06

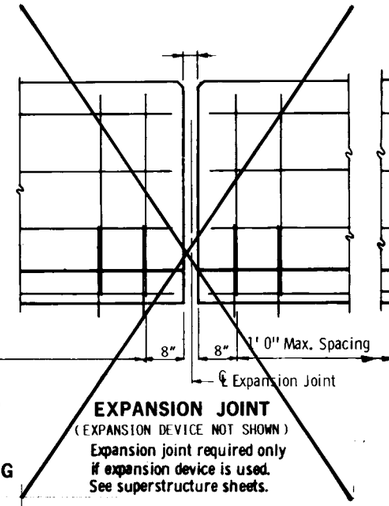
PLACEMENT DIAGRAMS FOR TOP & BOTTOM LONGITUDINAL REINFORCEMENT.

SUPERSTRUCTURE REINFORCEMENT	DRAWN: BRA	CHECKED: RRT	APPROVED: 10-7-96	BRIDGE NUMBER 55548
	SHEET 6 OF 11 SHEETS			

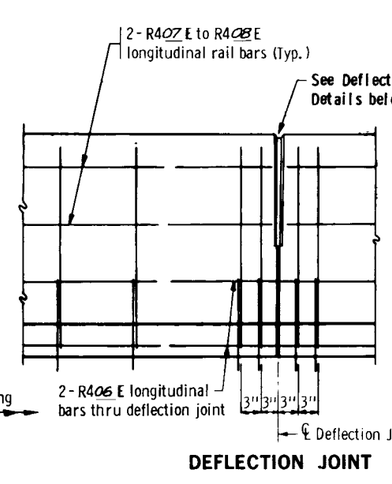




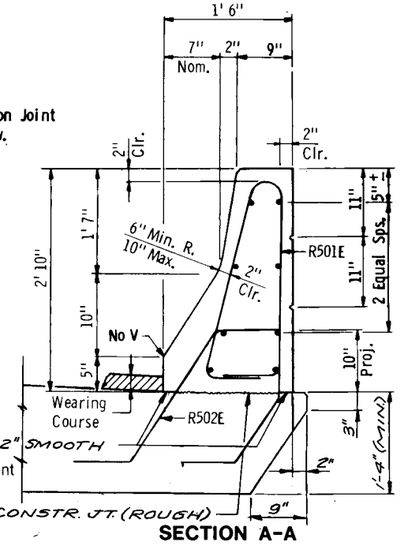
INSIDE ELEVATION OF RAILING
(WEARING COURSE NOT SHOWN)



EXPANSION JOINT
(EXPANSION DEVICE NOT SHOWN)
Expansion joint required only if expansion device is used. See superstructure sheets.



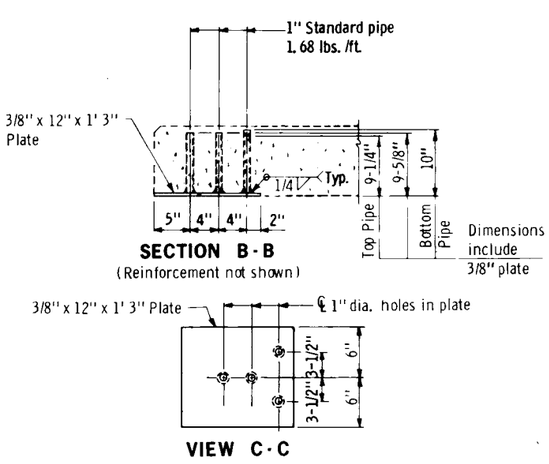
DEFLECTION JOINT



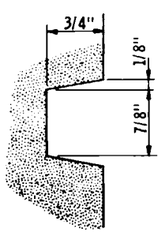
SECTION A-A

BILL OF REINFORCEMENT-RAILING				
BAR	NO.	LEN.	SHAPE	LOCATION
R501E	204	6'-6"	BENT	RAIL-VERT.
R502E	194	6'-10"	"	" "
R703E	4	6'-6	"	ENDPOST
R705E	12	7'-10"	"	"
(1) R406E	24	29'-3"	STR.	RAIL-LONG.
R407E	32	12'-10"	"	" "
R408E	16	15'-7"	"	" "

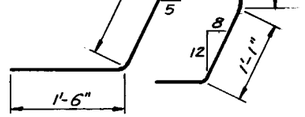
(1) 3 LINES WITH 1'-6" MIN. LAP



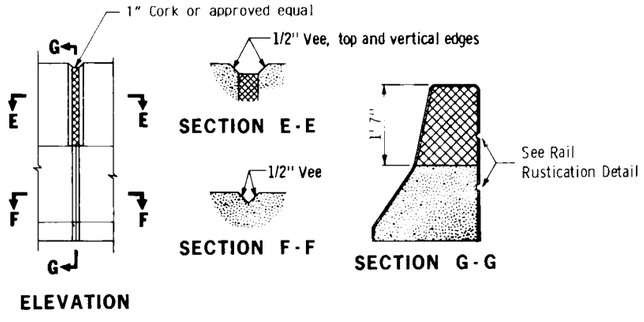
GUARDRAIL CONNECTION DETAIL
Galvanize after fabrication per Spec. 3394
Estimated Weight = 24 lbs.



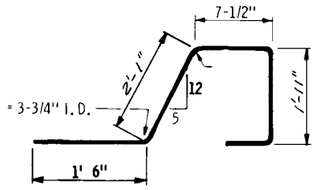
RAIL RUSTICATION



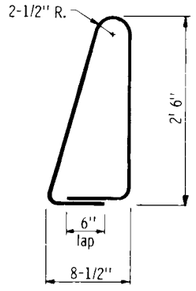
R502E



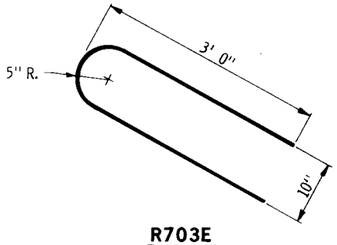
DEFLECTION JOINT DETAILS



R705E



R501E



R703E

GENERAL NOTES:

Bars marked with the suffix "E" shall be epoxy coated in accordance with Spec. 3301

Conc. Railing = 440 lbs./ft.
Conc. Railing = .109 cu. yds./ft.

Rail to be Structure Conc. (3X46A)

Guardrail connection shall be Structural Steel, Spec. 3306

Finish all edges of rail and end post with 1/2" vee except where otherwise noted.

See superstructure sheet for joint spacing.

Maximum spacing of concrete deflection joints shall be 20' 0"

Guardrail connection to be included in price bid for other items.

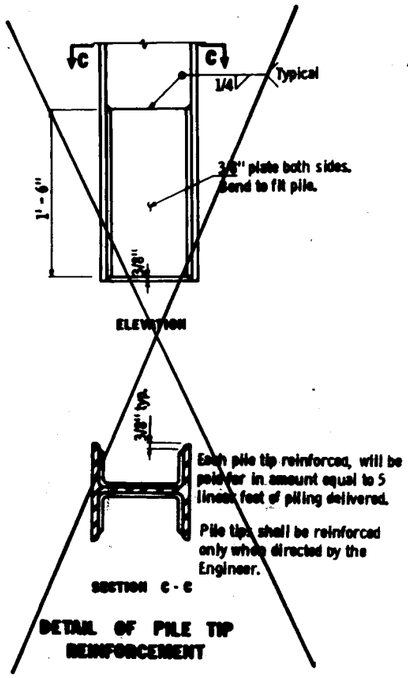
Rail quantities are included in summary of quantities for superstructure.

Length of railing concrete to be measured for payment between outside faces of railing.

S.A.P. 55-622-06

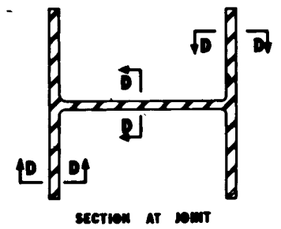
REVISED:	APPROVED: Nov. 26, 1985	FIG. 5-397.117

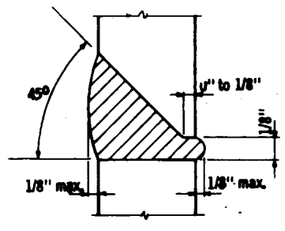
TITLE: CONCRETE RAILING (TYPE J) WITH INTEGRAL END POST	DES: RRT	DR: BRA	APPROVED: 10-7-86	Bridge No. 55548
	CHK:	CHK:	Sheet No. 7 of 11 Sheets	



DETAIL OF PILE TIP REINFORCEMENT

FOR PILE TIP REINFORCEMENT SEE SPECIAL PROVISIONS.





100% BUTT WELDED PILE SPLICE

NOTES:

A. W. S. Type E7016 or E7018 (low-hydrogen) electrodes shall be used for 100% butt welded splices.

A. W. S. Type E6010, E6011 electrodes, or E7016 or E7018 (low-hydrogen) electrodes, shall be used for the alternate plate type pile splice.

Low-hydrogen electrodes shall be supplied in hermetically (air-tight) sealed containers.

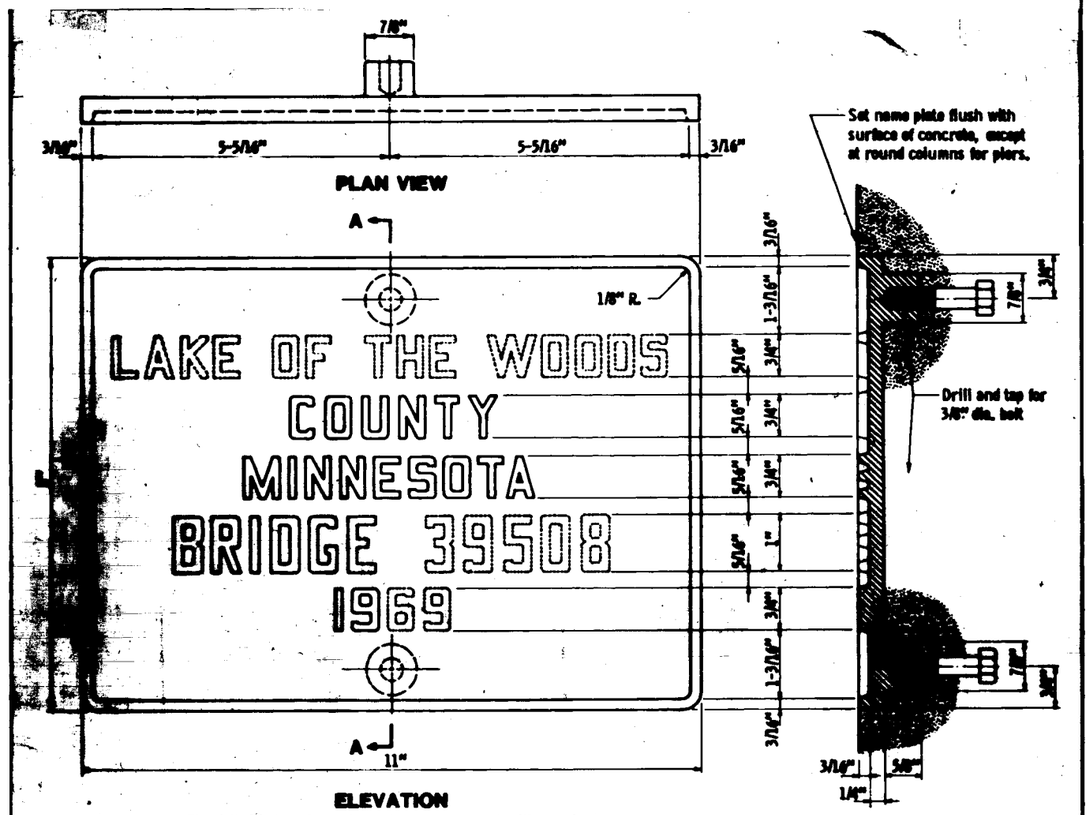
Low-hydrogen electrodes shall be stored in holding ovens at a temperature of not less than 250° F.

Low-hydrogen electrodes shall be placed in a holding oven for at least 8 hours, after having been exposed to the atmosphere for more than 2 hours.

Any type electrode which has become wet, soiled, or damaged shall not be used.

Welding shall not be done when the ambient temperature is lower than 0° F. or when the pile is wet or exposed to falling rain or snow. When the pile metal temperature is below 32° F., the pile metal in the area of the weld shall be heated to a minimum temperature of 70° F. and maintained at this temperature during welding.

APPROVED: November 5, 1979	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION		DETAIL NO.
Developed by: BRIDGE STANDARDS & BRIDGE AND STRUCTURES SECTION	PILE SPLICE and TIP REINFORCEMENT		B202
Issued by: ENGINEERING STANDARDS SECTION	STEEL H BEARING PILES 10" TO 14"		



ELEVATION

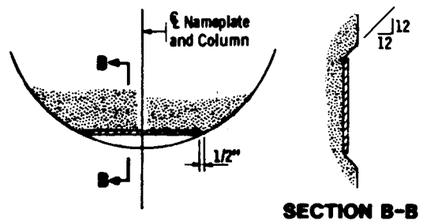
The dotted letters & numbers shown above are for illustration.
Data to be shown on name plate is as follows:

COUNTY OLMSTED
BRIDGE 55548
YEAR 1986

SECTION A-A



LETTERS & NUMBERS FOR NAMEPLATES



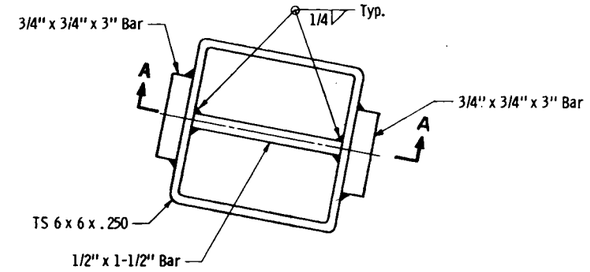
NAMEPLATE PLACEMENT
(Round Concrete Pier Columns)

NOTES:

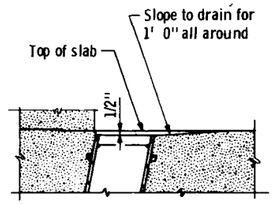
No shop drawing required.
Material shall comply with Spec. 3327
Letters and numbers shall conform to those shown.
Draft on letters and numbers shall not be more than 3" in 12".
Horizontal spacing of letters and numbers shall produce a balanced layout in proportion to spacing shown.
Top surface of letters, numbers and frames shall be burnished.
Furnish 2 steel bolts 3/8" dia. x 3" long with each plate.
All dimensions for 3/4" high letters and numbers shall be in direct proportion to those shown for the 1" high letters and numbers.

APPROVED: May 1, 1985	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	REVISION	DETAIL NO.
Developed by: ENGINEERING STANDARDS & BRIDGES AND STRUCTURES OFFICES	BRIDGE NAMEPLATE		B103
Issued by: OFFICE OF ENGINEERING STANDARDS	COUNTY BRIDGES		

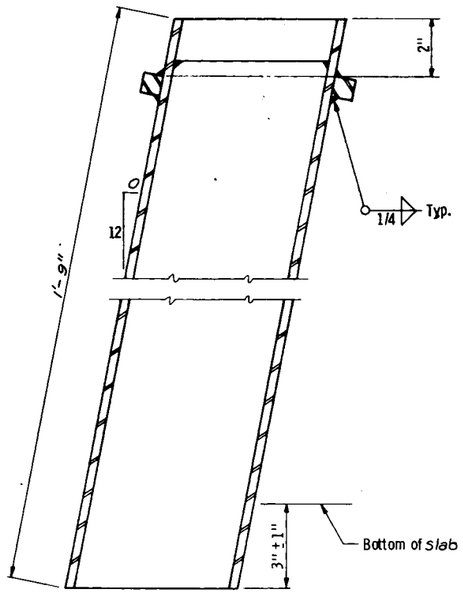
10-7-86



PLAN VIEW



PLACEMENT DIAGRAM



SECTION A-A

NOTES:

Material to be structural steel per Spec. 3306.

Galvanize bolts and washer per Spec. 3392.

Galvanize other materials per Spec. 3394 after fabrication.

Payment for Floor Drain Type __1__ shall include all material shown on this detail.

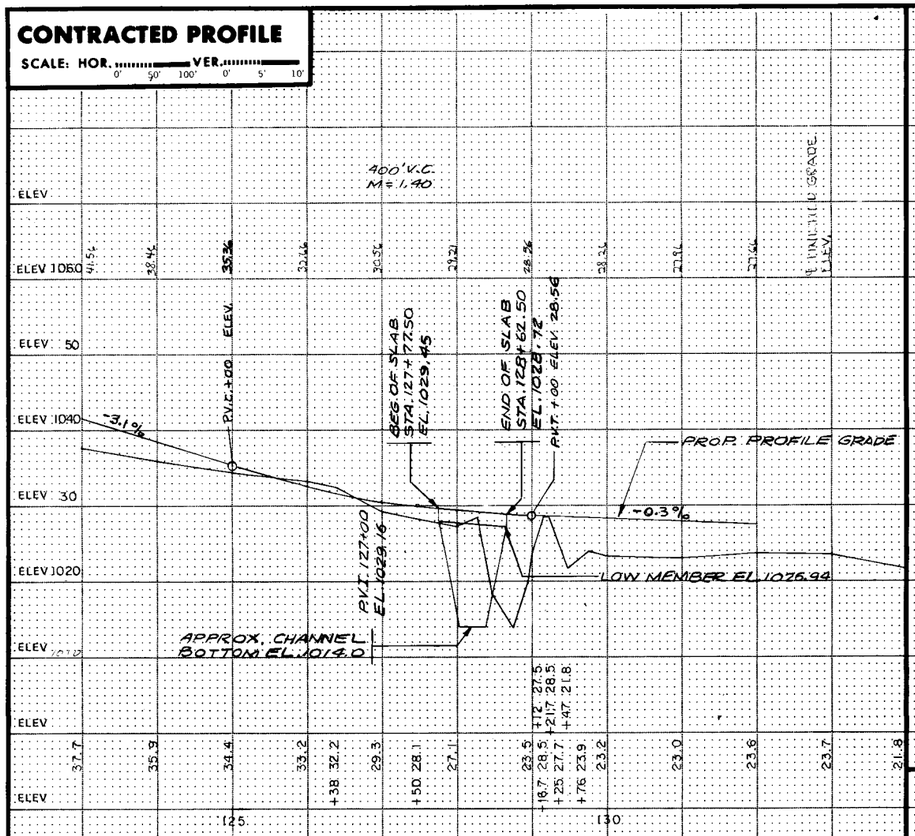
APPROVED: December 28, 1979 Developed by: ENGINEERING STANDARDS AND BRIDGES AND STRUCTURES OFFICES Issued by: OFFICE OF ENGINEERING STANDARDS	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION **BRIDGE FLOOR DRAIN** **STRUCTURAL TUBING**	REVISION	DETAIL NO. **B702**

S.A.P. 55-622-06	SHEET 9 OF 11 SHEETS	DETAILS	55548

10-7-82

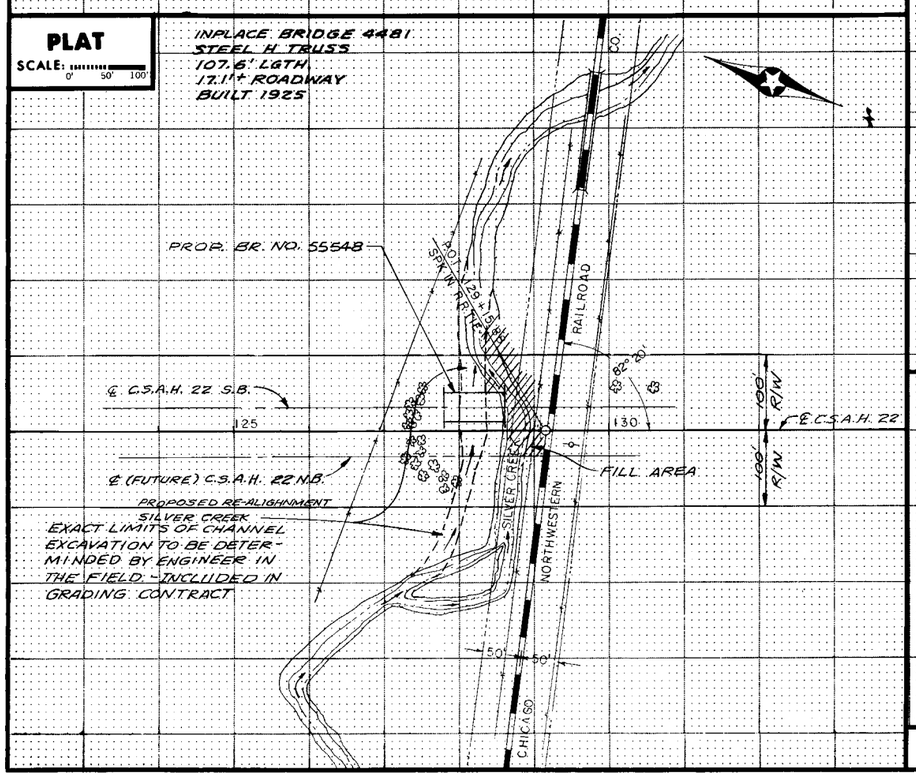
CONTRACTED PROFILE

SCALE: HOR. 0' 50' 100' VER. 0' 5' 10'



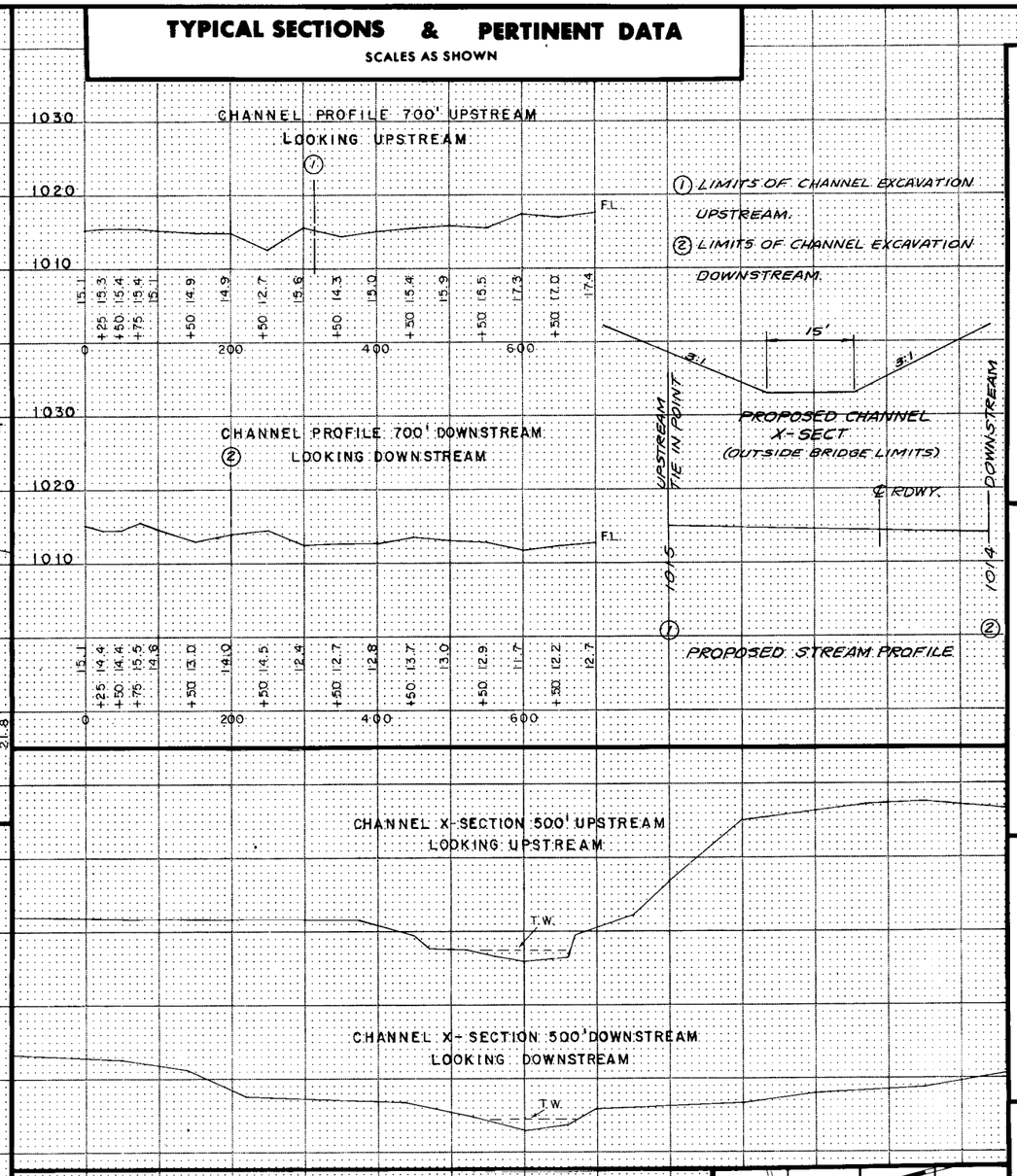
PLAT

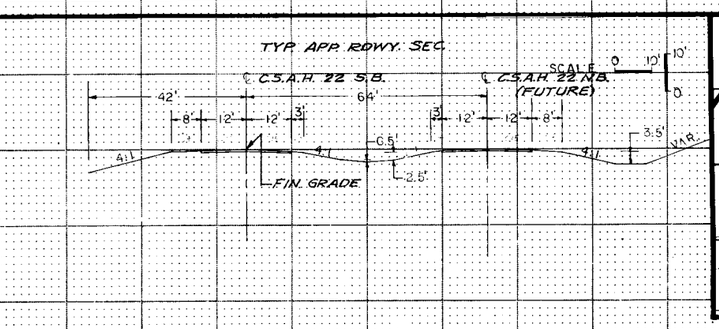
SCALE: 0' 50' 100'

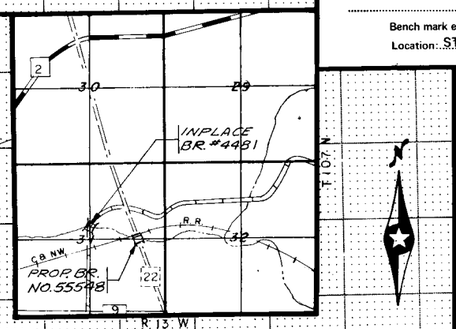


TYPICAL SECTIONS & PERTINENT DATA

SCALES AS SHOWN







Fed. Proj. No.

LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1. Special Features: Waterfalls, dams, floods, ice, debris, sliding banks, recreational boating.

2. Other bridges or culverts over the same stream (particularly structures which carry high water without overflow of roadway) :Given location, type, length, height above high water, cross-sectional area etc.

3. Apparent highwater elevation..... Obtained from.....

4. Other data: Approx. velocity of water at time of survey.....

HYDRAULIC ENGINEERS RECOMMENDATION

DATE 10-23-85

Stream or ditch designation SILVER CREEK
Drainage area 17.3 SQ.MI.
Max. flood on record 6580 CFS Design flood (50 yr. freq.) 4750 C.F.S.
Max. observed highwater elevation UNK. Design highwater elevation 1024.3
Design mean velocity through structure 9.5 F.P.S.
Low superstructure at or above elevation 1027.3 (AVERAGE)
Flowline elevation 1014.0 Skew angle NONE
Waterway area req'd. below elevation 1024.3 502 Sq. Ft. at Rt. angles to channel

In the interest of flood plain zoning the regional flood (100 yr. freq.) is 5940 C.F.S. at stage 1025.8 and mean velocity of 10.4 F.P.S. with 0.5 Ft. swellhead. The above recommendation will provide a structure of adequate waterway to pass the regional flood within criteria established by the Dept. of Natural Resources.

~~FOUNDATION~~ ENGINEERS RECOMMENDATION

DATE 2-86

25'-32'-25' CONC. SLAB SPANS
40' ROADWAY

Bridge survey sheets made from: BRIDGE SURVEY CONDUCTED BY BY OLMSTED COUNTY

Bench mark elevation 1017.334 (M.S.L. 1929 Adj.)
Location: STD. DISC. 1/3 MILE WNW OF BR. SITE.

MINNESOTA
DEPARTMENT OF TRANSPORTATION

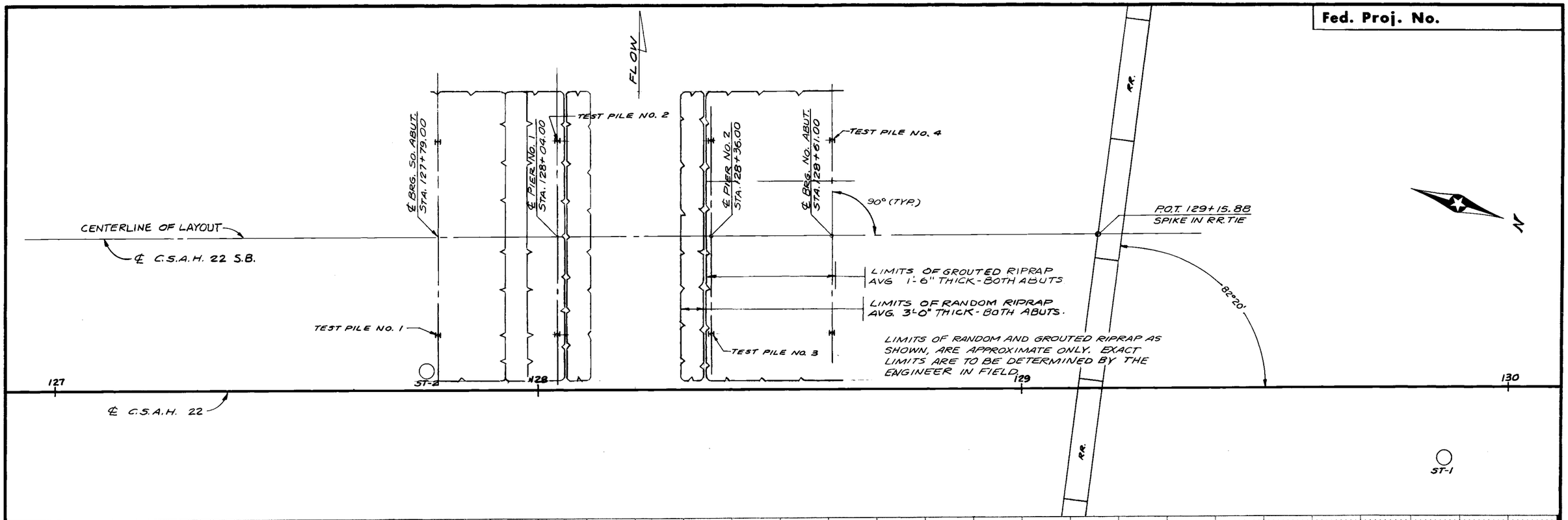
BRIDGE SURVEY

AT MILE POINT 0.5 ON C.S.A.H. 22 (T.H., C.S.A.H., C.R. etc.)
PROPOSED BRIDGE LOCATED 0.5 MILES NW OF
T INTERSECTION C.S.A.H. 9 & C.S.A.H. 22
SEC. 31 TWP 107 N R 13 W
TOWNSHIP HAVERHILL COUNTY OLMSTED
BRIDGE NO. 55548

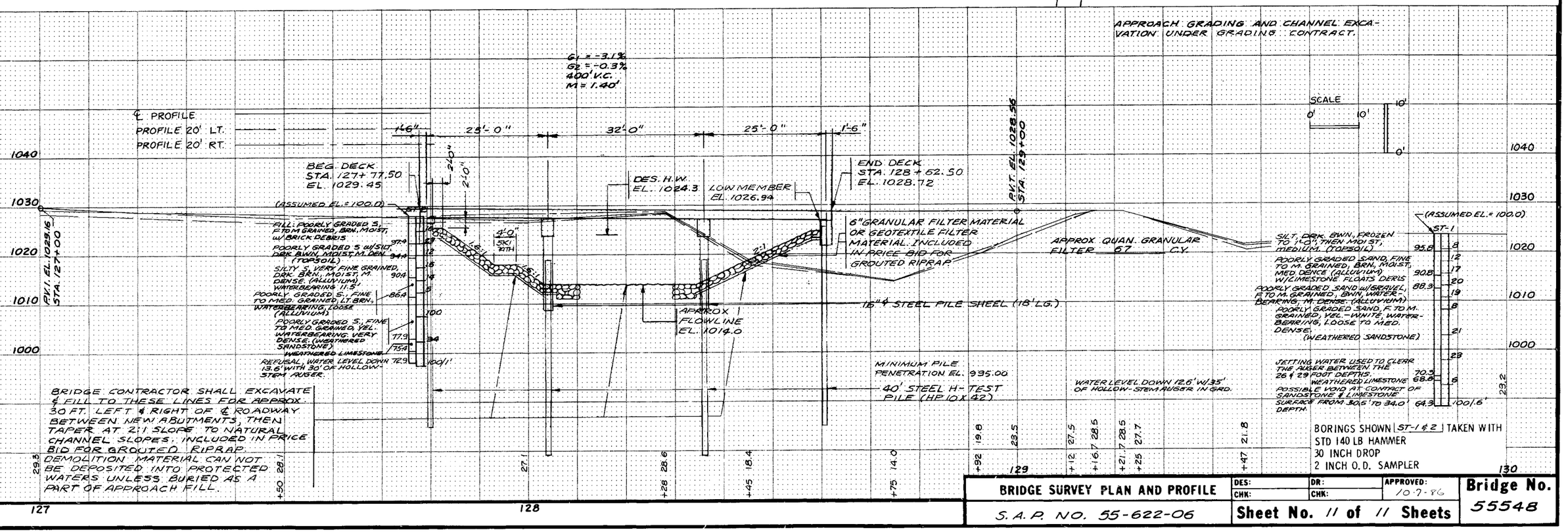
10-7-86

Area No. Job No. S.A.P. 55-622-06 Sheet No. 10 of 11 Sheets

Fed. Proj. No.



APPROACH GRADING AND CHANNEL EXCAVATION UNDER GRADING CONTRACT.



BRIDGE SURVEY PLAN AND PROFILE	DES:	DR:	APPROVED: 10-7-86	Bridge No. 55548
S.A.P. NO. 55-622-06	CHK:	CHK:	Sheet No. 11 of 11 Sheets	

MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR BRIDGE NO. 55548

LOCATED ON CSAH 22 **BETWEEN** ..... **AND** ..... **(GEOGRAPHIC DESCRIPTION)**

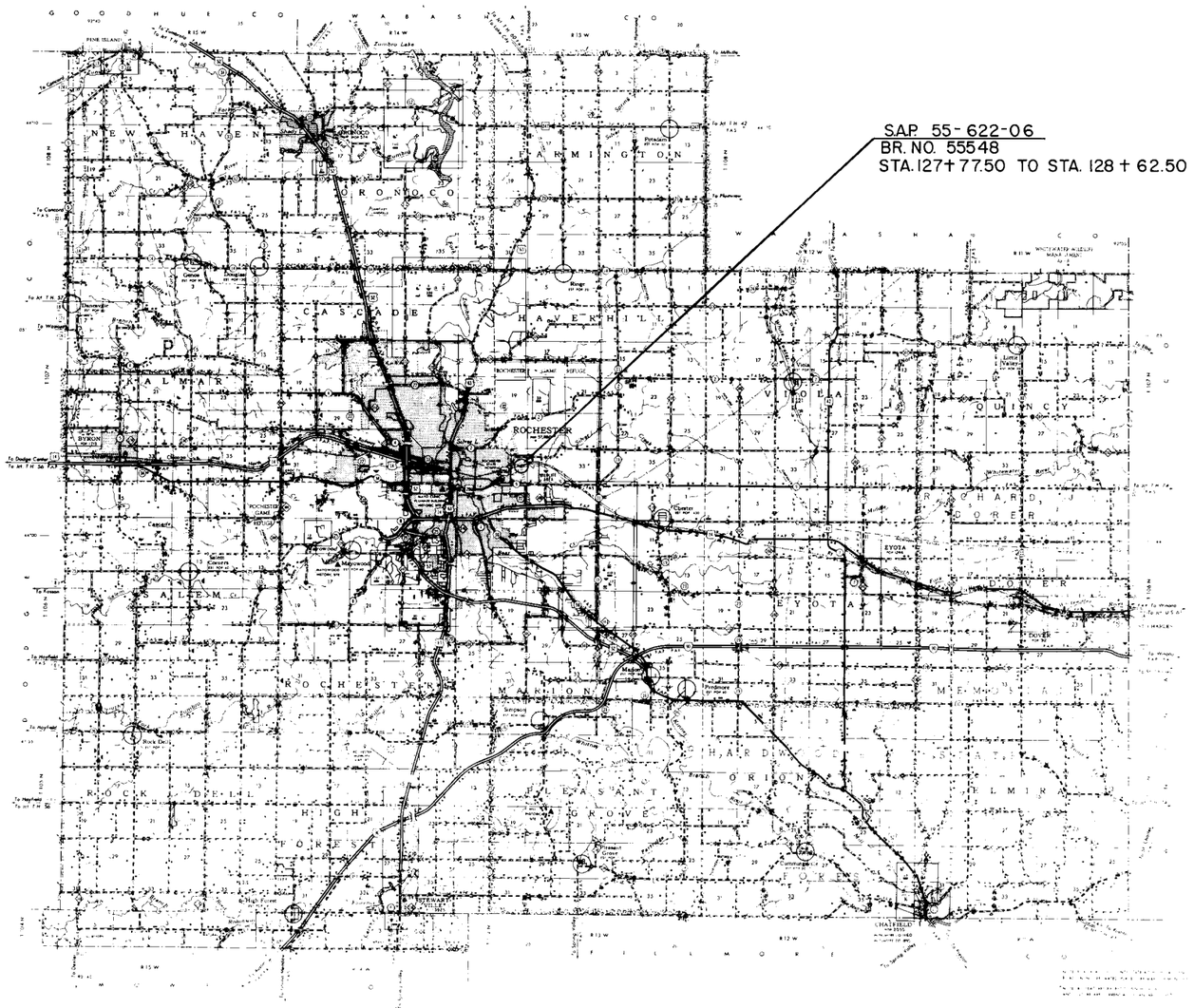
IN E. 1/2 SEC. 31, T.107N., R13W. ..... **(LEGAL DESCRIPTION)**

~~**STATE PROJ. NO.**~~ SAP 55-622-06

GROSS LENGTH	85.00	FEET 0.016	MILES
BRIDGES-LENGTH	85.00	FEET 0.016	MILES
EXCEPTIONS-LENGTH	0.00	FEET 0.000	MILES
NET LENGTH	85.00	FEET 0.016	MILES

STATE PROJ. NO. .....

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



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)
SLOPE EASEMENT SE

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—G
WATER MAIN W—W
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

SCALES

PLAN .....
PROFILE .....
INDEX MAP .....
GENERAL LAYOUT .....

ALBINSON MPLS 55405

MINN. PROJ. NO. .....

GOVERNING SPECIFICATIONS

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

INDEX

Sheet No. 0	Title Sheet
Sheets No. 1-11	Bridge Plans

DESIGN DESIGNATION

R .....
ADT (Current Year) = 5197
ADT (Future Year) = ...
DHV (Design Hr. Vol.) = ...
D (Directional Distr.) = ... %
T (Heavy Commercial) = ... %
SOIL FACTOR .....

ΣN18(20) .....
Design Speed 50 MPH
Based on STOPPING Sight Distance
Height of eye 3.5' Height of object 0.5'
Design Speed not achieved at:
STA. ..... TO STA. ..... MPH
STA. ..... TO STA. ..... MPH
STA. ..... TO STA. ..... MPH

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.

DATE 10-6-86 REG. NO. 10397 ENGR Michael Shea

COUNTY Olmsted

Recommended for Approval ..... 10-6 19..
DISTRICT STATE AID ENGINEER

Recommended for Approval Donald J. Flemming 10-7 1986
BRIDGE ENGINEER

Approved 10-8 1986
for STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

....
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-622-06
STATE PROJ. NO. ..... **SHEET NO.** 0 **OF** 11 **SHEETS**