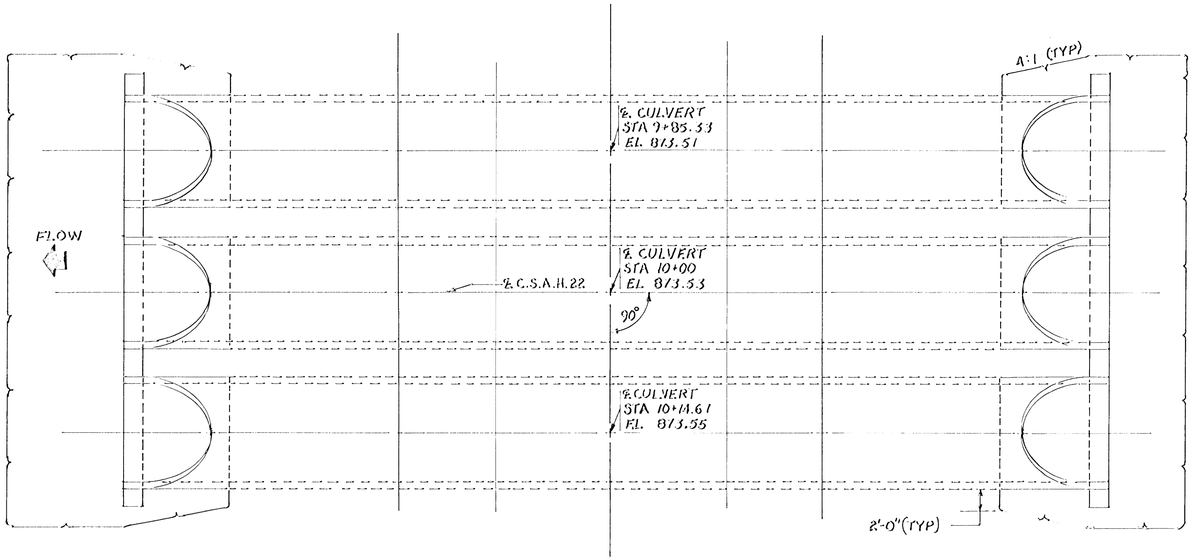
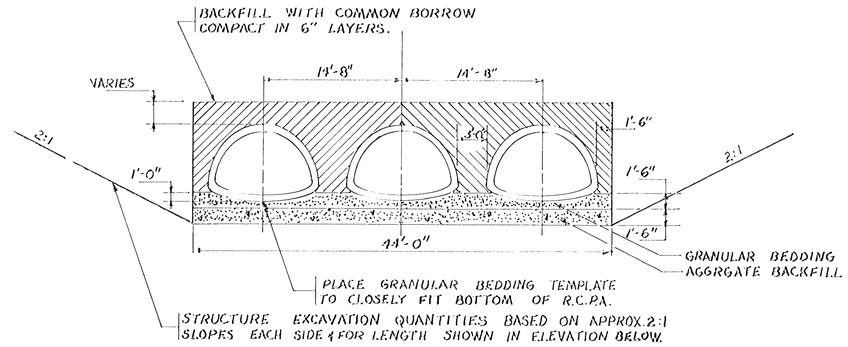
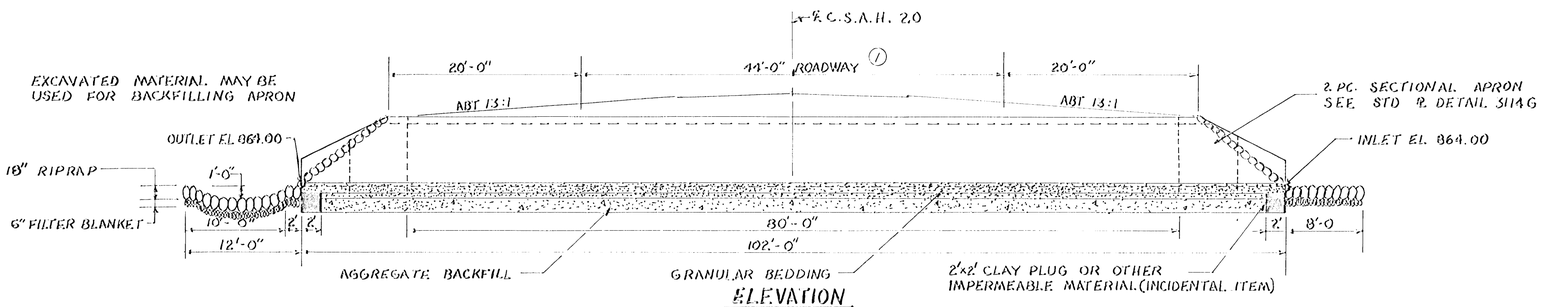


PLAN
SCALE 1/8" = 1'-0"



SECTION THRU CULVERT
SCALE 1/8" = 1'



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

THE PLACING OF THE FILTER BLANKET MAY BE ELIMINATED IF IN THE OPINION OF THE ENGINEER THE MATERIAL IN PLACE WILL DRAIN PROPERLY WITHOUT SCOURING.

LIMITS OF RANDOM RIPRAP AS SHOWN ARE APPROX. ONLY EXACT LIMITS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

1 RESTORATION OF THE BASE & THE BITUMINOUS PORTION OF THE ROADWAY SHALL BE DONE BY THE COUNTY.

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	PARTICIPATING	NON-PARTICIPATING	TOTAL
2105.523	COMMON BORROW (C.V.)	CU. YD.	1000	200	1200
2451.501	STRUCTURE EXCAVATION CLASS U	CU. YD.	900		900
2412.501	REMOVE OLD BRIDGE # 90719	LUMP SUM.		1	1
2451.505	AGGREGATE BACKFILL (C.V.)	CU. YD.	240		240
2451.507	GRANULAR BEDDING (C.V.)	CU. YD.	170		170
2501.521	F&I 122" SPAN R.C.P.A. CULVERT	LIN. FT.	240		240
2501.525	F&I 122" SPAN R.C.P.A. APRONS	EACH	6		6
2511.501	RANDOM RIPRAP CLASS B	CU. YD.	80		80
2511.504	FILTER BLANKET TYPE 1	CU. YD.	20		20

NOTE:
AN APPROVED AGGREGATE MAY BE SUBSTITUTED FOR AGGREGATE BACKFILL PENDING APPROVAL OF THE ENGINEER IN THE FIELD.

STANDARD PLATES AS APPROVED BY F.H.W.A. SHALL APPLY	
STANDARD PLATES	
0002A	SPECIFICATION REFERENCES TO STANDARD PLATES.
3014 J	REINFORCED CONCRETE PIPE-ARCH DETAIL.
3114 G	SECTIONAL CONCRETE APRON FOR R.C.P.A.
3145 C	CONCRETE PIPE JOINT TIES.
8000 H	STANDARD BARRICADES.

GOVERNING SPECIFICATIONS

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

APPROVED: Paul R. Freed
COUNTY ENGINEER
DATE: ANOKA COUNTY

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: 7-2-92 REG. NO. 6224

PLANS PREPARED BY
ERICKSON ENGINEERING
3340 REPUBLIC AVE.
ST. LOUIS PARK, MN 55426

C.S.A.H. 22 ANOKA COUNTY
MINNESOTA DEPARTMENT OF TRANSPORTATION

CULVERT NO. 95167

LOCATED ON C.S.A.H. 22 0.4 MILES EAST OF JCT OF CR. 67

IDENT. NO. 115
SEC. 27 TWP 33N R 24W

TOWNSHIP: OAK GROVE COUNTY: ANOKA
APPROVED:
BRIDGE ENGINEER

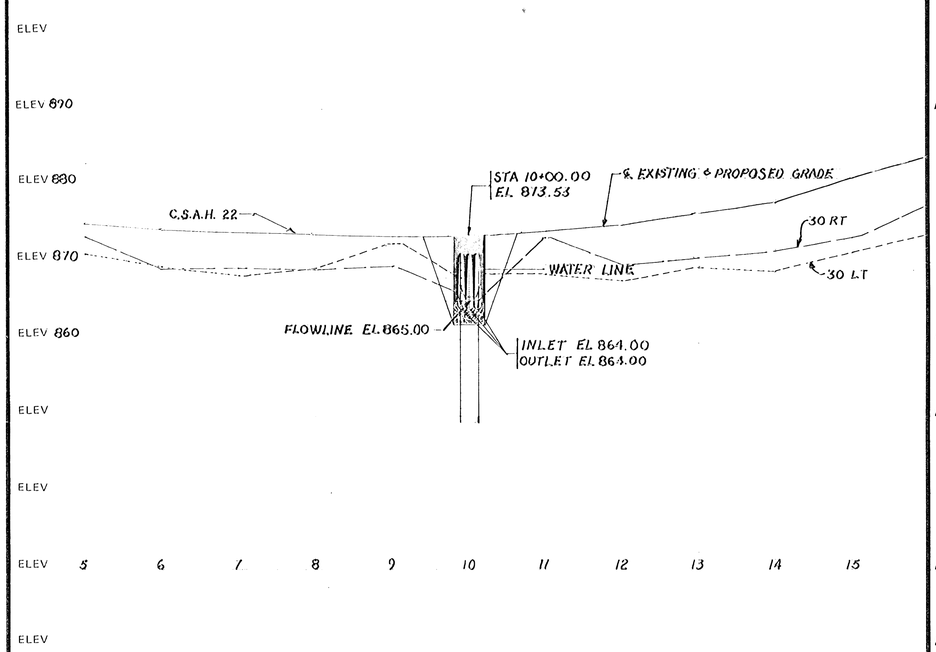
GENERAL PLAN & ELEVATION

S.A.P 02-622-18

SHEET NO. 2 OF 4 SHEET

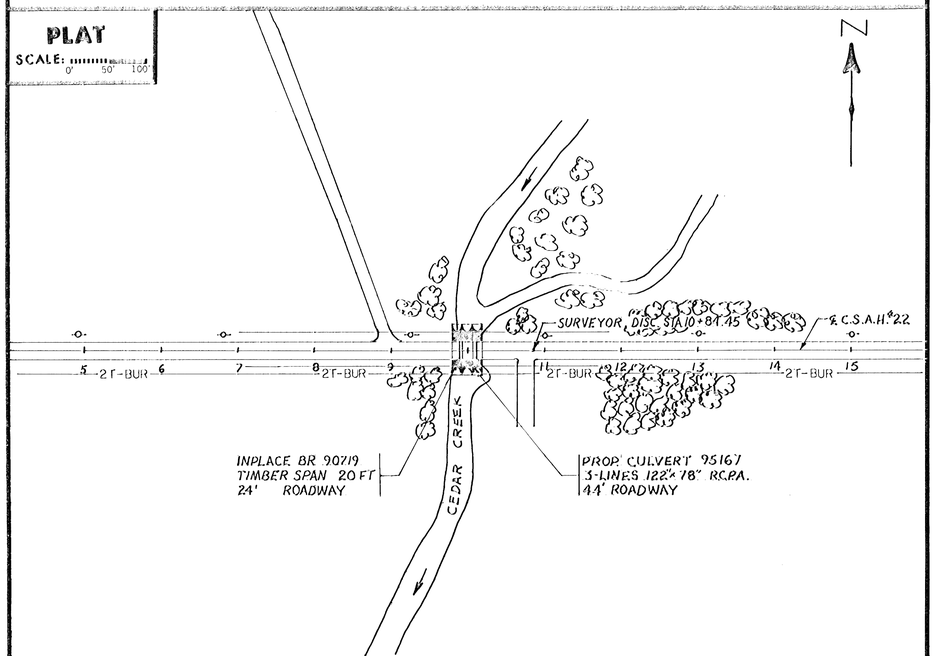
CONTRACTED PROFILE

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



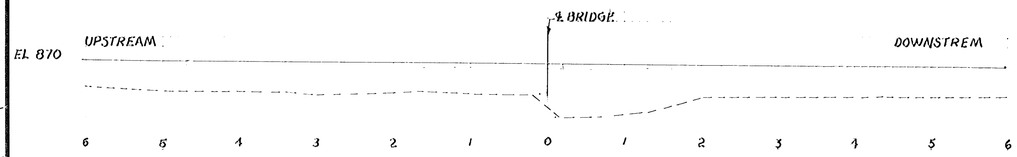
PLAT

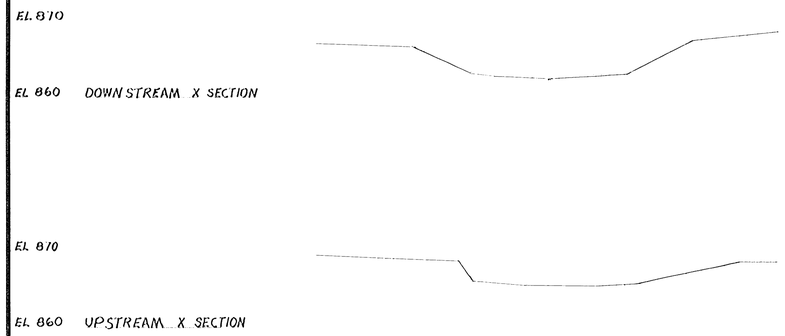
SCALE: 0' 50' 100'

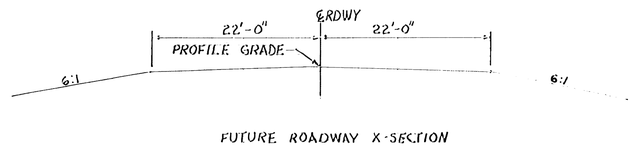


TYPICAL SECTIONS & PERTINENT DATA

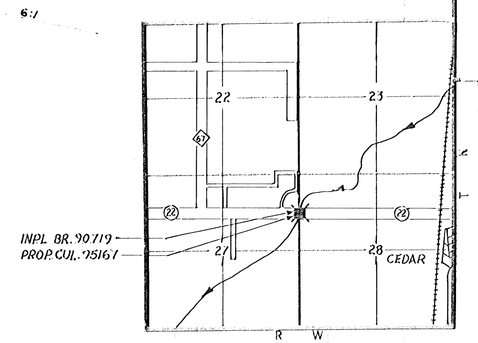
SCALES AS SHOWN







FUTURE ROADWAY X-SECTION



INDEX MAP
(FOUR SECTIONS)

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 .....

Stream or ditch designation CEDAR CREEK

Drainage area 68 SQ.MI.

Max. flood on record UNK Design flood (50 yr. freq.) 830 C.F.S.

Max. observed highwater elevation UNK Design highwater elevation 871.7

Design mean velocity through structure 5.5 F.P.S.

Low superstructure at or above elevation .....

Flowline elevation 865.00 Skew angle NONE

Waterway area req'd. below elevation ..... = ... Sq. Ft. at Rt. angles to channel

INLET EL 864.00

In the interest of flood plain zoning the regional flood (100 yr. freq.) is 1000 C.F.S. at stage 872.30 and mean velocity of 6.7 F.P.S. with 1.1 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.

3-LINES 122"×78" RCPA
44' ROADWAY
PROJ ADT FOR 1999 = 2409

Bridge survey sheets made from: NOTES BY ERICKSON ENGINEERING

Bench mark elevation 872.36 (M.S.L. 1929 Adj.)

Location: SIKE IN N.E. ABUT CURB

MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

AT MILE POINT ..... ON C.S.A.H. 22 (T.H., C.S.A.H., C.R. etc.)

PROPOSED BRIDGE LOCATED 0.4 MILES EAST OF JCT CR. 67

SEC. 27 TWP 33 N R 24 W

TOWNSHIP OAK GROVE COUNTY ANOKA

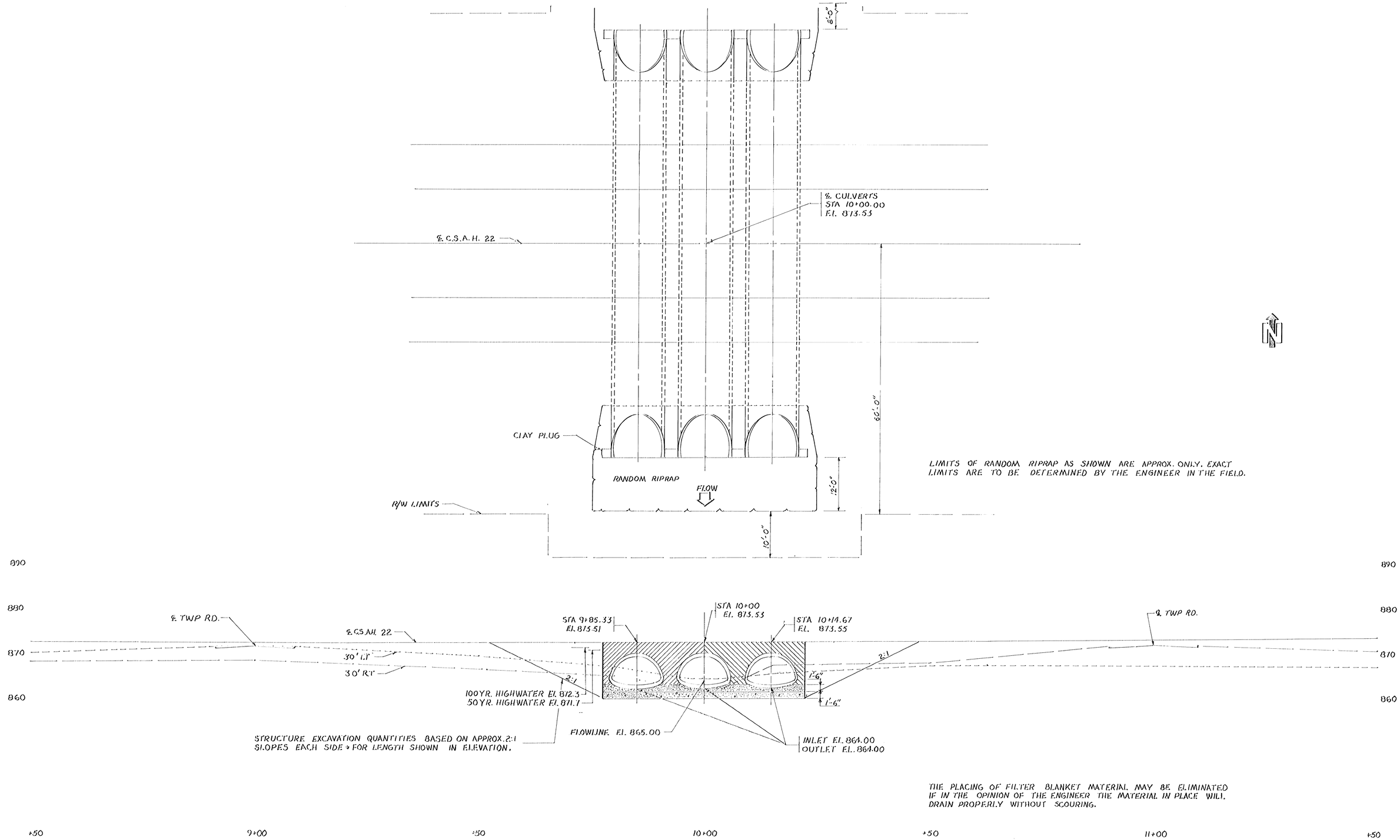
BRIDGE NO. 95167

Area No. Job No.

STATE AID PROJ. NO. 02-622-18

Sheet No. 3 of 4 Sheets

TELEDYNE POST BRIDGE SURVEY 18C-2 9/76



LIMITS OF RANDOM RIPRAP AS SHOWN ARE APPROX. ONLY. EXACT LIMITS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STRUCTURE EXCAVATION QUANTITIES BASED ON APPROX. 2:1 SLOPES EACH SIDE & FOR LENGTH SHOWN IN ELEVATION.

THE PLACING OF FILTER BLANKET MATERIAL MAY BE ELIMINATED IF IN THE OPINION OF THE ENGINEER THE MATERIAL IN PLACE WILL DRAIN PROPERLY WITHOUT SCOURING.

STATE AID PROJ. NO. 02-622-18 4 4

95167