MINNESOTA DEPARTMENT OF TRANSPORTATION

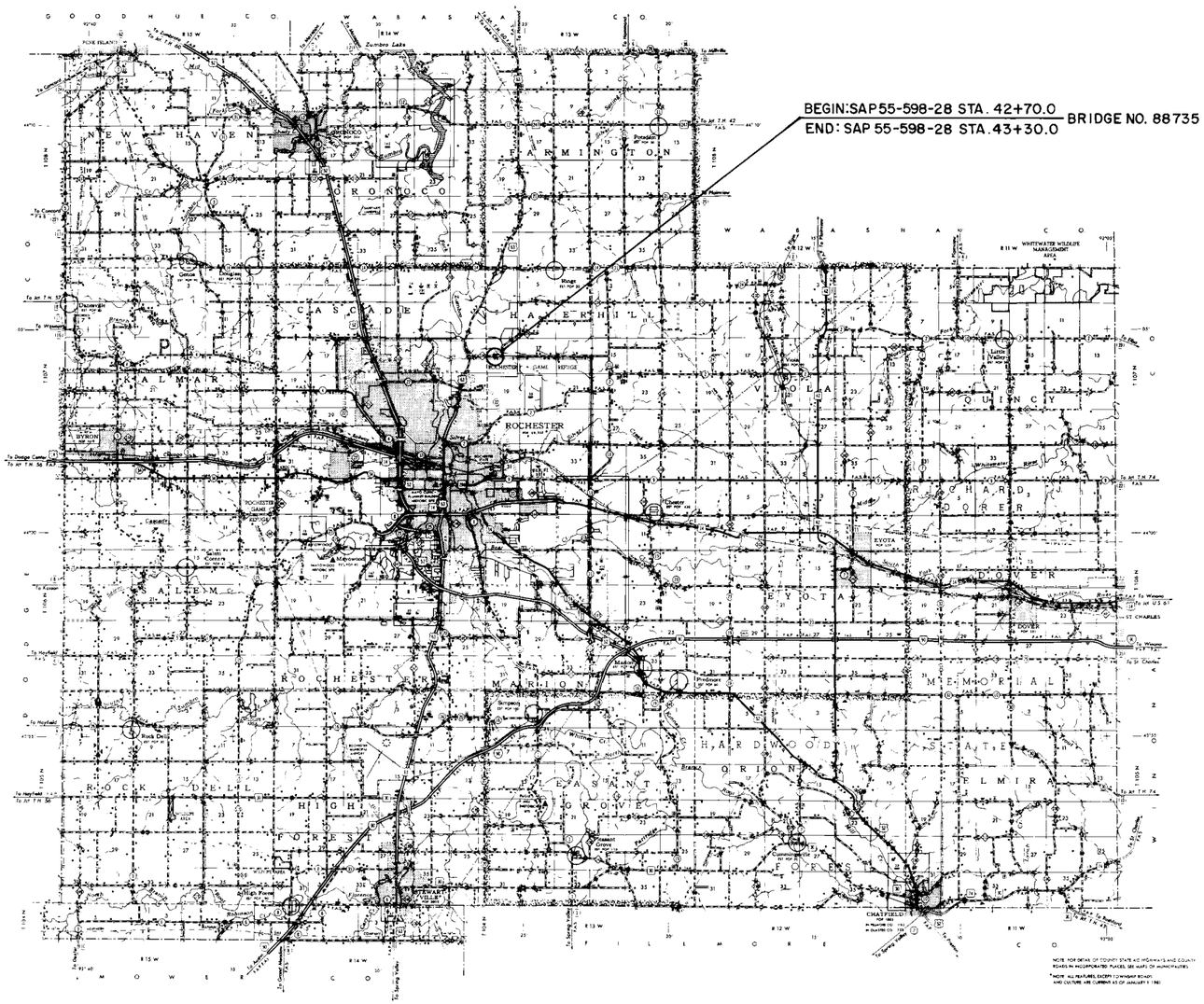
THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR BR. NO. 88735 REPLACEMENT

LOCATED ON CR. 124 **BETWEEN** TH.63 AND 1.0 MILE EAST ~~AND~~ 1.9 MILES N.E. OF ROCHESTER **(GEOGRAPHIC DESCRIPTION)**

FROM 943.0' E. OF CENTER SEC.18 T.107N - R.13W. **TO** 883.0' E. OF CENTER SEC.18 T.107N. - R.13W. **(LEGAL DESCRIPTION)**

STATE PROJ. NO.			~~**STATE PROJ. NO.**~~ SAP 55-598-28		
GROSS LENGTH	FEET	MILES	GROSS LENGTH 60.00	FEET 0.011	MILES
BRIDGES-LENGTH	FEET	MILES	BRIDGES-LENGTH	FEET	MILES
EXCEPTIONS-LENGTH	FEET	MILES	EXCEPTIONS-LENGTH	FEET	MILES
NET LENGTH	FEET	MILES	NET LENGTH 60.00	FEET 0.011	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
DRY RUN
DRAINAGE DITCH
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
SAND PIT
BORROW PIT
ROCK QUARRY
SLOPE EASEMENT

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
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

SCALES

PLAN 0 100'
PROFILE 0 100' HOR. 0 10' VERT.
INDEX MAP 0 2 MILES
GENERAL LAYOUT 0 10'

STATE AID TITLE SHEET AS REVISED FOR CS-10405

MINN. PROJ. NO.

SPECIFICATIONS REFERENCE

The 1978 Edition of the Minnesota Department of Transportation "Standard Specifications For Highway Construction" Shall Govern.

INDEX

SHEET NO. 1 TITLE SHEET
" NO. 2 ESTIMATE OF QUANTITIES AND TYPICAL SECTION.
" NO. 3&4 BRIDGE SHEETS.

DESIGN DESIGNATION

R		ΣN18(20)	
ADT (Current Year)	= 840	Design Speed 50 MPH	
ADT (Future Year)	= 1680	Based on Stopping Sight Distance	
DHV (Design Hr. Vol.)	=	Height of eye 3.75' Height of object 0.5'	
D (Directional Distr.)	= %	Design Speed not achieved at:	
T (Heavy Commercial)	= %	STA. TO STA. MPH	
SOIL FACTOR	130	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 5-12-83 REG. NO. 10219 ENGR. J.K. Dolan

COUNTY Olmsted

Recommended for Approval [signature] 5-11 1983
DISTRICT STATE AID ENGINEER

Recommended for Approval Delbert D. Ofterdahl 5-25 1983
STATE AID PLANS AND SPECS ENGINEER

Approved 5 19 [signature]
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-598-28
~~**STATE PROJ. NO.**~~

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	PARTICIPATING	NON-PARTICIPATING	TOTAL ESTIMATED QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM	1		1
	2104.509	REMOVE BOX CULVERT	EACH		1	1
(1)	2451.507	GRANULAR BEDDING (CV)	CU. YD.	286		286
	2501.521	102" SPAN RCP-ARCH CULVERT CLASS II A	LIN. FT.	222		222
	2501.525	102" SPAN RC PIPE-ARCH APRONS	EACH	6		6
	2511.501	RANDOM RIP RAP CLASS "B"	CU. YD.	170		170
	2511.504	FILTER BLANKET TYPE I	CU. YD.	85		85

(1) COMPUTATIONS FOR GRANULAR BEDDING QUANTITY END AREA 104.18 SQ. FT. x LENGHT OF BARREL 74' = 7709.32 ÷ 27 = 286 CU. YDS.

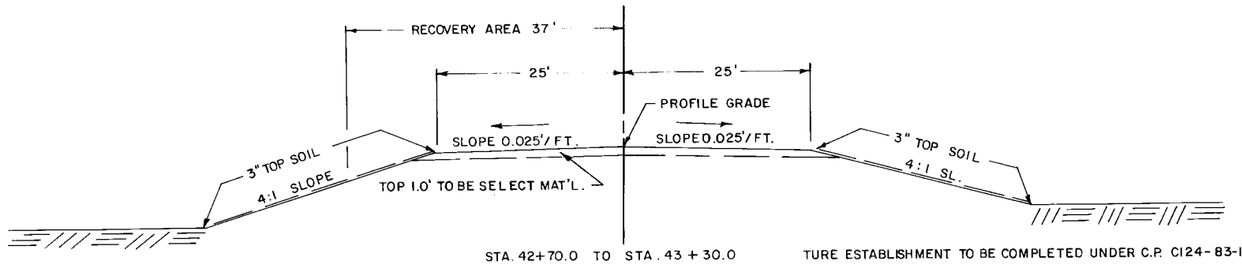
STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO	DESCRIPTION
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES.
3007 A	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES.
3014 J	REINFORCED CONCRETE PIPE ARCH DETAIL.
3110 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE ARCH.
3145 B	CONCRETE PIPE JOINT TIES.
3133 A	RIP RAP AT RCP OUTLETS.
8000 H	STANDARD BARRICADES.

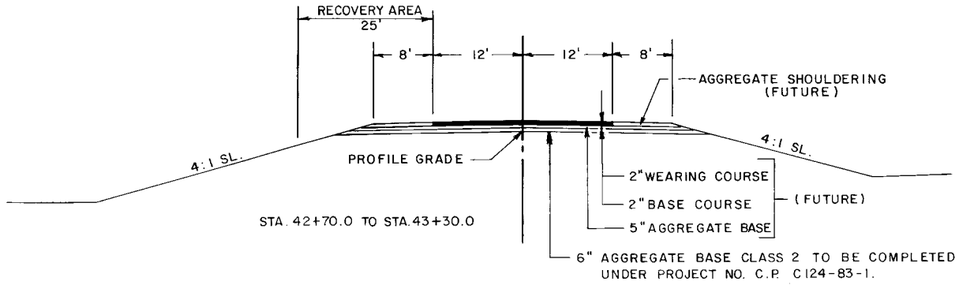
TYPICAL GRADING SECTION

GRADING TO BE COMPLETED UNDER PROJECT NO. C.P. C124-83-1



STA. 42+70.0 TO STA. 43+30.0 TURE ESTABLISHMENT TO BE COMPLETED UNDER C.P. C124-83-1.

TYPICAL AGGREGATE BASE AND SURFACING SECTIONS



STA. 42+70.0 TO STA. 43+30.0

NOTE: CULVERT EXCAVATION WILL BE CONSIDERED INCIDENTAL AND WILL BE INCLUDED FOR PAYMENT UNDER UNIT PRICE FOR ITEM NO. 2501.521.

NOTE: ALL DIMENSIONS AND SLOPES SHOWN ON TYPICAL SECTIONS ARE APPROXIMATE.

S.A.P. 55-598-28

~~State Proj. No.~~

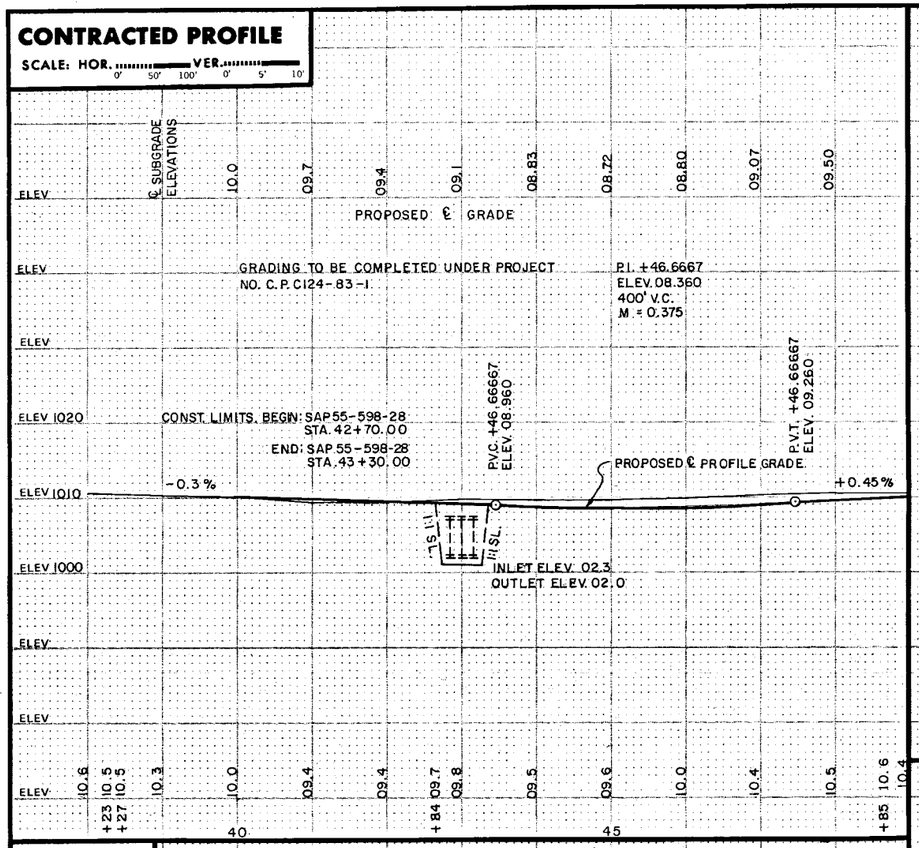
OLMSTED COUNTY CR124

AS BUILT PLANS

ALBINSON, INC. MINNEAPOLIS 55405

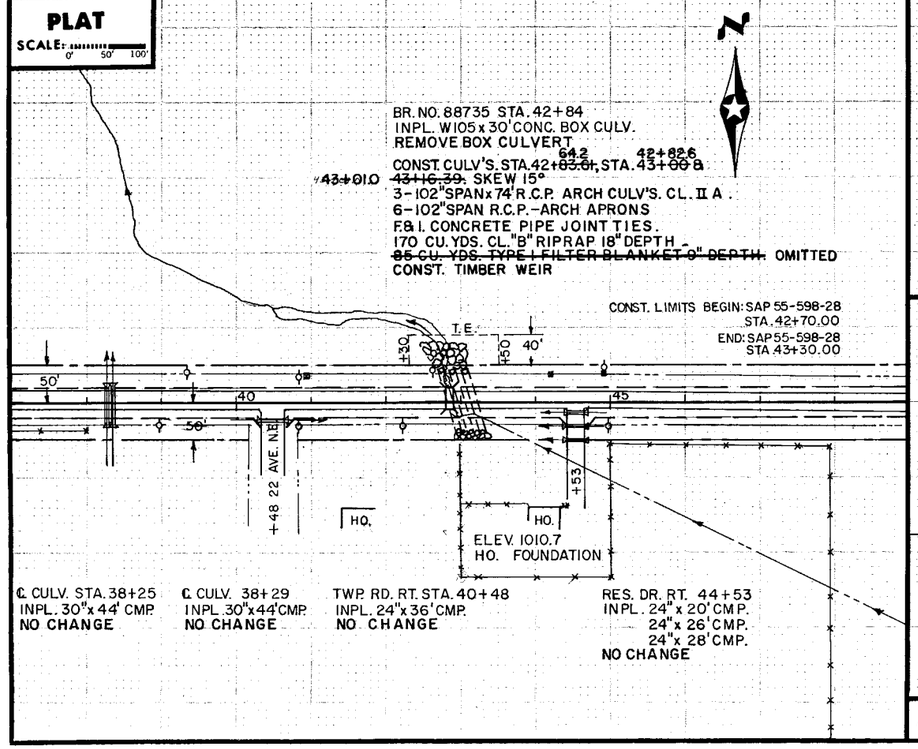
CONTRACTED PROFILE

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



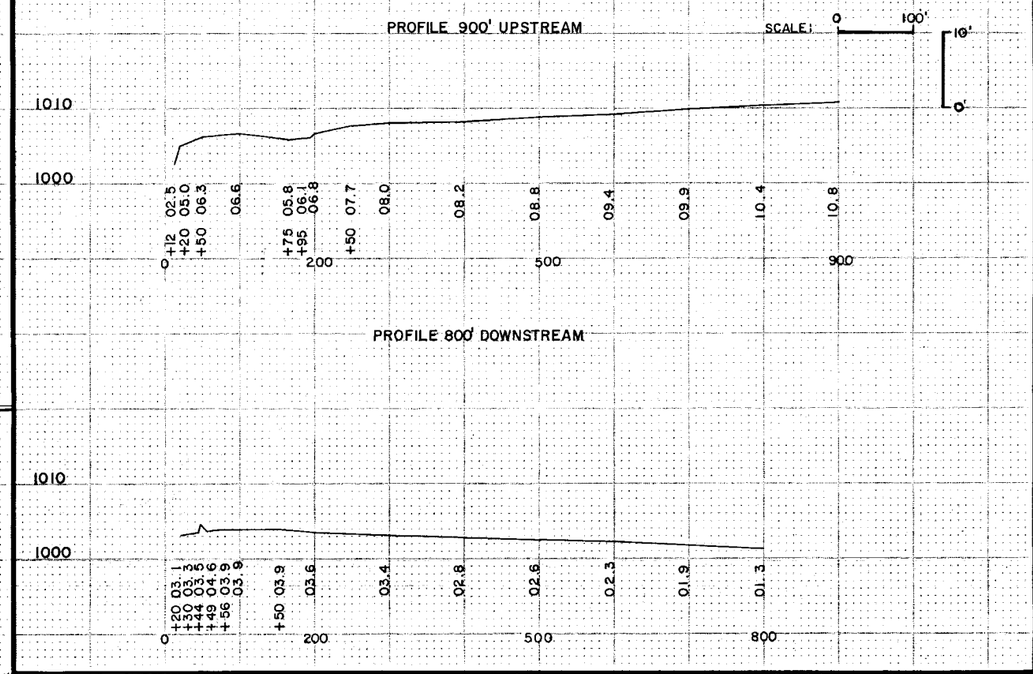
PLAT

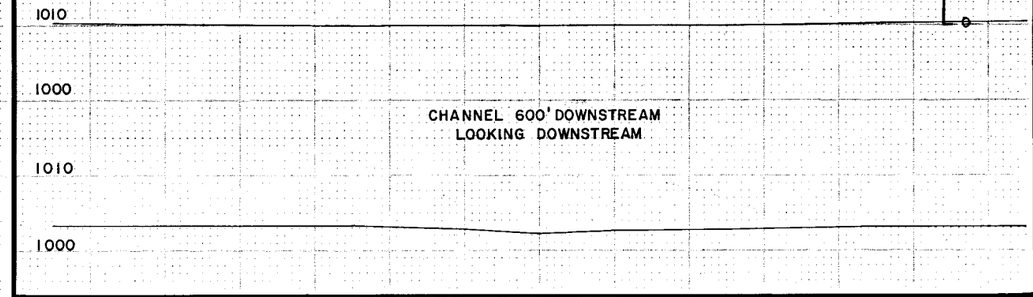
SCALE: 0' 50' 100'

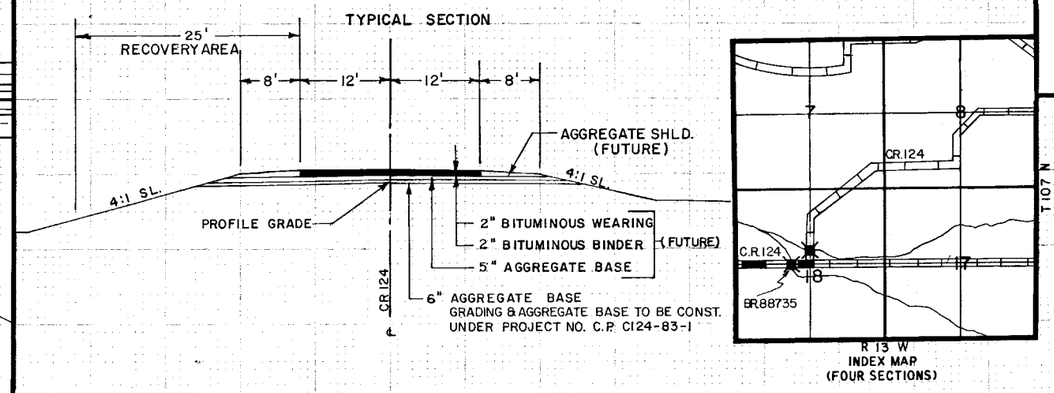


TYPICAL SECTIONS & PERTINENT DATA

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 5-4-83

Stream or ditch designation ...DRY RUN...

Drainage area ...2.5 SQ. MILES...

Max. flood on record.....Design flood (...50... yr. freq.) ..980...C.F.S.

Max. observed highwater elevation UNKNOWN....Design highwater elevation..1009.1.....

Design mean velocity through structure ...12'.....F.P.S...2.2 FT. STAGE INCREASE.

Low superstructure at or above elevation .....

Flowline elevation ...1002.7.....Skew angle.....15°.....

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

In the interest of flood plain zoning the regional flood (100 yr. freq.) is...1175.....C.F.S. at stage..1010.0.....and mean velocity of...13.0.....F.P.S. with...3.2.....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 .....

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

Bench mark elevation 1009.59 (M.S.L. 1929 Adj.)

Location: ROD IN S.W. CORNER HDWL. BOX CULV. 42+84.

MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

AT MILE POINT 0.8 ON C.R. 124 (T.H., C.S.A.H., C.R. etc.)

PROPOSED BRIDGE LOCATED 1.9 MILES N.E. OF ROCHESTER

SEC. 18 TWP 107 N. R 13 W.

TOWNSHIP HAVERHILL COUNTY OLMSTED

BRIDGE NO. 88735

Area No. **Job No.** OLMSTED COUNTY CR. 124 ~~**State Proj. No.**~~ SAP 55-598-28 **Sheet No.** 3 **of** 4 **Sheets**

AS BUILT PLANS

Fed. Proj. No.

SCALE 0 10' 20'

RANDOM RIPRAP CLASS "B" 18" DEPTH
FILTER BLANKET TYPE I 9" DEPTH

50'

8' FUTURE AGGREGATE SHOULDER

12' FUTURE BITUMINOUS MAT

℄ LAYOUT ℄ CR. 124 | 42 | 43 | 44

12'

8' FUTURE AGGREGATE SHOULDER

50'

T.E. T.E.

TEMPORARY CONST. EASEMENT TO 90'

BEGIN: SAP 55-598-28
STA. 42+70.00

END: SAP 55-598-28
STA. 43+30.00

78°

+88.61 64.2

+69 82.6

+16.39 01.10

RANDOM RIPRAP CLASS "B" 18" DEPTH
FILTER BLANKET TYPE I 9" DEPTH

PLAN

1020
1010
1000

℄ PROFILE
20' LEFT
20' RIGHT

BEGIN: SAP 55-598-28
STA. 42+70.00

END: SAP 55-598-28
STA. 43+30.00

GRADING TO BE COMPLETED UNDER
PROJECT NO. C.R. C124-83-1.
PROPOSED ℄ PROFILE GRADE.

1:1 SL. 1:1 SL.

CONSTRUCTION LIMITS

GRANULAR BEDDING 3.66'

1.0'

47.0'
43.0'

INLET ELEV. 02.3
OUTLET ELEV. 02.0

ELEVATION

09.4 09.8 09.5

+84 09.7

42 43 44

OLMSTED COUNTY C.R.124

SAP 55-598-28

BRIDGE SURVEY PLAN AND PROFILE

Sheet No. 4 of 4 Sheets

Bridge No. 88735

AS BUILT PLANS