MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR GRADING & AGGREGATE BASE

LOCATED ON C.R. 149 **BETWEEN** C.R. 108 **AND** 0.4 MILE SOUTH **(GEOGRAPHIC DESCRIPTION)**

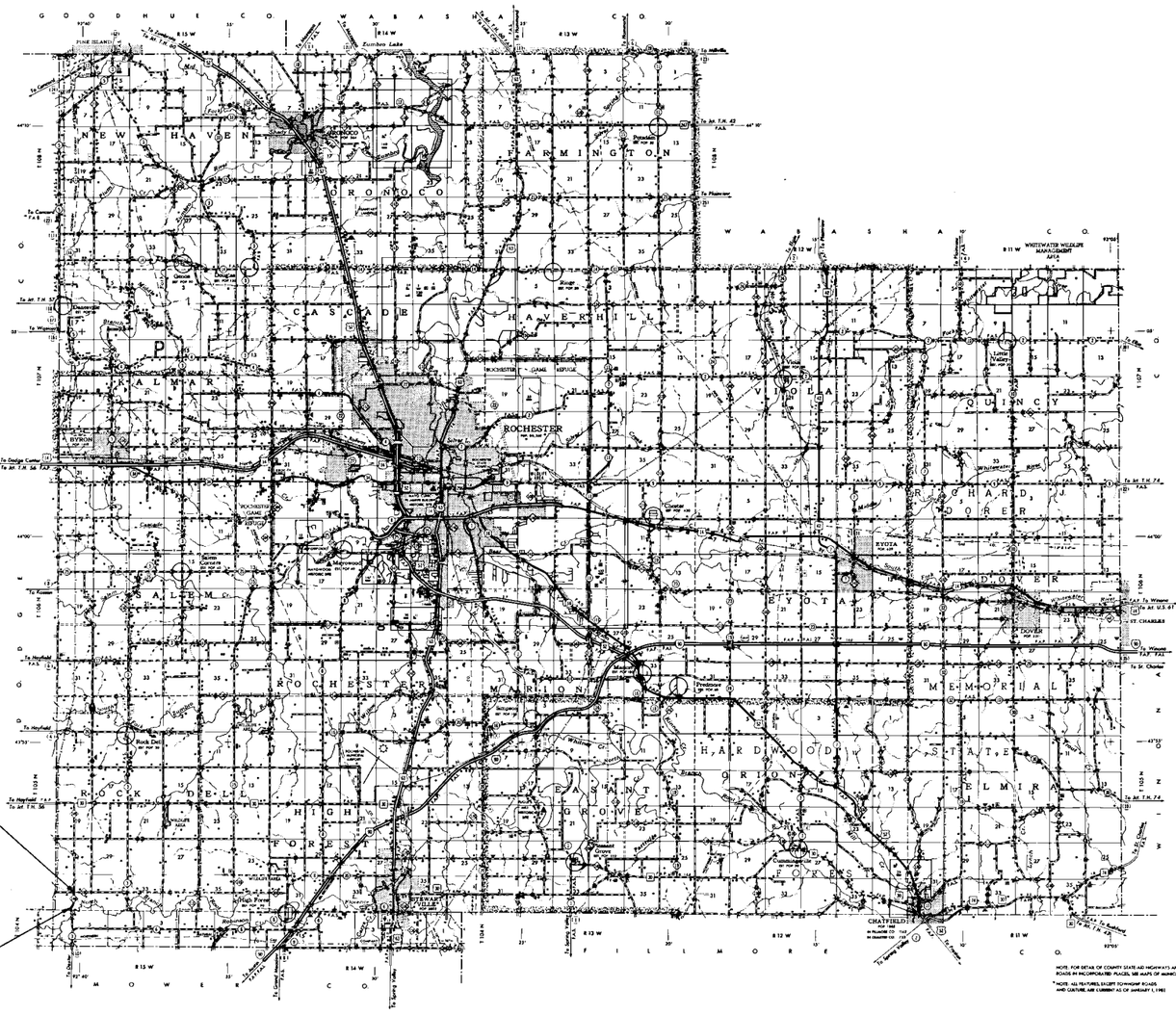
FROM 370'W. AND 560'N. OF S.1/4 COR. SEC. 31 T. 105 N. R. 15 W. **TO** CENTER SEC. 31 T. 105 N. – R. 15 W. **(LEGAL DESCRIPTION)**

COUNTY PROJECT
~~STATE PROJ. NO.~~ C149-83-4

GROSS LENGTH	2200.00	FEET	4167 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	2200.00	FEET	4167 MILES

STATE PROJ. NO.

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



NOTE: FOR DETAIL OF COUNTY STATE AID HIGHWAYS AND COUNTY ROADS IN INCORPORATED PLACES, SEE MAPS OF MUNICIPALITIES.

* NOTE: ALL FEATURES, EXCEPT TOWNSHIP ROADS AND CAUTIONS, ARE CURRENT AS OF JANUARY 1, 1982

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 (W)
CHAIN LINK FENCE (C-L)
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 (TIMBER)
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame) (I-S-F 75')
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 100 FT.
PROFILE 100 FT. HORIZ & 10' VERT.
INDEX MAP 10,560 FT.
CROSS SECTIONS 10 FT.

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 & LAYOUT MAP
SHEET NO. 2 ESTIMATE OF QUANTITIES & TYPICAL SECTIONS
SHEET NO. 3 PLAN & PROFILE
SHEET NO.4-6 CROSS SECTIONS

DESIGN DESIGNATION

R
ADT (Current Year) = 55
ADT (Future Year) = 110
DHV (Design Hr. Vol.) =
D (Directional Distr.) = %
T (Heavy Commercial) = %
SOIL FACTOR 130

ΣN18 [20]
Design Speed 50 MPH
Based on STOPPING Sight Distance
Height of eye 3.75' 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 8-23-83 REG. NO. 10219 ENGR. J K Dolan

COUNTY Olmsted

Recommended for Approval 19
DISTRICT STATE AID ENGINEER

Recommended for Approval 19
STATE AID PLANS AND SPECS ENGINEER

Approved 19
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

~~STATE AID PROJ. NO.~~ COUNTY PROJ. C149-83-4
STATE PROJ. NO. **SHEET NO. 1 OF 6 SHEETS**

AS BUILT PLANS

STATE AID TITLE SHEET ALBINSON, MPLS 55405

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES	
2104.501	REMOVE PIPE CULVERTS	LIN. FT.		84	84	
2105.501	COMMON EXCAVATION	CU. YD.		2924	2924	(P)
2105.507	SUBGRADE EXCAVATION	CU. YD.		505	505	(P)
2105.523	COMMON BORROW (CV)	CU. YD.		1,793	1,793	
2501.511	18" C.S. PIPE CULVERT	LIN. FT.		28	28	
2501.511	30" C.S. PIPE CULVERT	LIN FT.		36	36	
2501.515	18" G.S. PIPE APRONS	EACH		2	2	
2501.515	30" G.S. PIPE APRONS	EACH		2	2	
2501.521	57" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.		40	40	
2501.525	57" SPAN G.S. PIPE-ARCH APRONS	EACH		2	2	

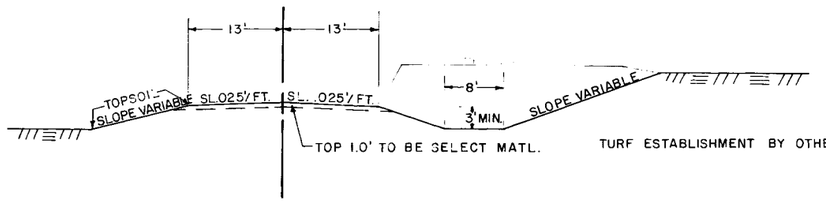
(P) PLAN QUANTITY IN ACCORDANCE WITH SPEC. 1901

STANDARD PLATES

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

PLATE NO	DESCRIPTION
0003A	SPECIFICATION REFERENCE TO STANDARD PLATES
3040F	CORRUGATED METAL PIPE
3122H	METAL APRON FOR C.M. PIPE-ARCH CULVERT
3123H	METAL APRON FOR C.M. PIPE
3124A	METAL APRON CONNECTION
8000F	STANDARD BARRICADES
9000B	APPROACHES AND ENTRANCES

TYPICAL GRADING SECTION



STA. 36+00 TO STA. 57+00

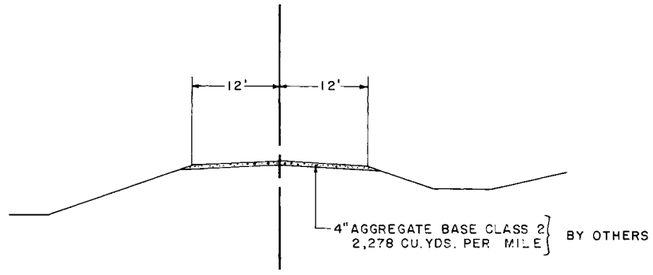
NOTE: MATERIAL FROM THE UPPER 1.0' OF THE NATURAL TOPSOIL SHALL NOT BE USED IN THE UPPER 1.0' OF THE ROADBED. PART OF THIS MATERIAL SHALL BE UNIFORMLY SPREAD ON SLOPES AND DITCH BOTTOMS TO A DEPTH OF 3". NO PAYMENT IN ADDITION TO THE CONTRACT PRICE FOR COMMON EXCAVATION WILL BE MADE FOR SPREADING THE TOPSOIL AS ABOVE PROVIDED, NOR WILL ANY UNDERCUTTING MADE IN EXCAVATION PRIOR TO PLACING THE TOPSOIL BE MEASURED FOR PAYMENT.

NOTE: CORRUGATED STEEL AND REINFORCED CONCRETE PIPE CULVERT EXCAVATION WILL BE CONSIDERED INCIDENTAL, AND WILL BE INCLUDED FOR PAYMENT UNDER UNIT PRICE FOR "PIPE CULVERT."

NOTE: SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE FOR COMPACTION, AS SHOWN ON THE PLAN AND PROFILE SHEETS. EXCAVATION HAS BEEN COMPUTED AND IS LISTED AS SUBGRADE EXCAVATION. BACKFILL WITH SELECT MATERIAL FROM R.O.W. TAPERS SHALL BE 50:1 IN ALL CASES.

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

TYPICAL AGGREGATE BASE SECTION



STA. 36+00 TO STA. 57+00

AS BUILT PLANS

39+20

F.E. LT. STA. ~~44+28~~
INPL. 15"x 24' CMP.

REMOVE
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

P.I. 44+25.25
Δ LT. 27° 14'
D 7°00
T 198.27'
L 389.05'
E 23.67'
0.048'/FT. RATE SUPER
200' TRANSITION

P.C. 42+26.98

P.T. 46+16.03

P.T. 35+54.69

BEGIN GRADING
STA. 36+00

END GRADING
STA. 58+00

TWP RD. LT. STA. 57+49
NO CULV. INPL.

NO CULV. REQ'D.

P.I. 57+50.10
RT. 00°10'

CENTER SEC. 31 T.13 N. R.13 W.

Fed. Proj. No.

F.E. RT. STA. 44+26
NO CULV. INPL.

NO CULV. REQ'D.

℄ CULV. STA. 52+91
INPL. 36"SPAN x 2' RISE x 24' LONG
CONC. ARCH

REMOVE
57" SPAN x 40' C.S. PIPE-ARCH CULV. 12 GAGE
2-57" SPAN G.S. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING.

CR. 108 RT. STA. 57+49
INPL. 30"x 36' CMP / CONC. HDWL'S.

REMOVE
30" x 36' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

B.M. ELEV. 1275.72
HOLE IN S.W. HDWL.
CULV. LT. 33+76

B.M. ELEV. 1280.96
SPK. IN COR. POST
53' RT. 44+35

B.M. ELEV. 1289.20
SPK. IN P. POLE 39'
RT. 57+81

℄ SUBGRADE ELEV.

P.I. + 89.47368
EL. 85.73158
400' V.C.
M = 0.95

P.V.C. + 89.47368 EL. 82.53158
P.V.T. + 89.47368 EL. 85.13758
P.V.C. + 47.61905 EL. 82.55714
P.V.T. + 47.61905 EL. 87.05714

P.I. + 47.61905
EL. 81.65714
600' V.C.
M = 1.575

+1.6%
-0.3%
+1.8%

BEGIN GRADING
STA. 36+00

END GRADING
STA. 58+00

INLET ELEV. 78.4
OUTLET ELEV. 78.1

COMMON EXC. 2924 CU. YDS.
SUBGRADE EXC. 505 CU. YDS.
COMMON BORROW (CV) 1793 CU. YDS.
EMB. 3810 CU. YDS.

75' LT.
75' RT.

1300
1290
1280
1270

State Proj. No. C.R. 149 C149-83-4

Sheet No. 3 of 6 Sheets

AS BUILT PLANS

SHEET PLAN & PROFILE (DETAIL)
KLEINFELDER, INC. BOWLING GREEN, KENTUCKY PLANT