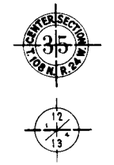
FORM 129A REV. '54

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT ROAD R/W LINE
LIMITED ACCESS
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
STEAM RAILROAD
ELECTRIC RAILROAD
RAILROAD R/W OR OTHER R/W LINE
CREEK
RAPIDS OR WATERFALL
DRY RUN
DRAINAGE DITCH
HIGH TENSION LINE
POWER POLE LINE
TELEPHONE OR TELEGRAPH LINE
TELEPHONE CONDUIT
GUARD RAIL
WIRE FENCE
RAILROAD SNOW FENCE
BOARD OR HIGHWAY SNOW FENCE
STONE WALL OR FENCE
GAS MAIN
WATER PIPE
SEWER PIPE
DRAIN TILE
GRAVEL PIT
SAND PIT
CLAY PIT
ROCK QUARRY
SPRINGS
MARSH

TIMBER
BRUSH
ORCHARD
ROCK LEDGE
SAND
EDGE OF CUT
TOE OF EMBANKMENT
CATCH BASIN
MANHOLE
DROP INLET
FIRE HYDRANT
ARC LAMP
OTHER LAMPS (State Kind)
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
CATTLE GUARD
OVERHEAD (Highway Over)
UNDERPASS (Highway Under)
ABUTMENT, WALL & PIER
BRIDGE
CULVERT
BUILDING (One Story Frame)
C-CONCRETE S-STONE T-TILE B-BRICK ST-STUCCO
HEDGE
IRON PIPE
STONE MONUMENT
WOOD STAKE OR HUB
MEANDER CORNER



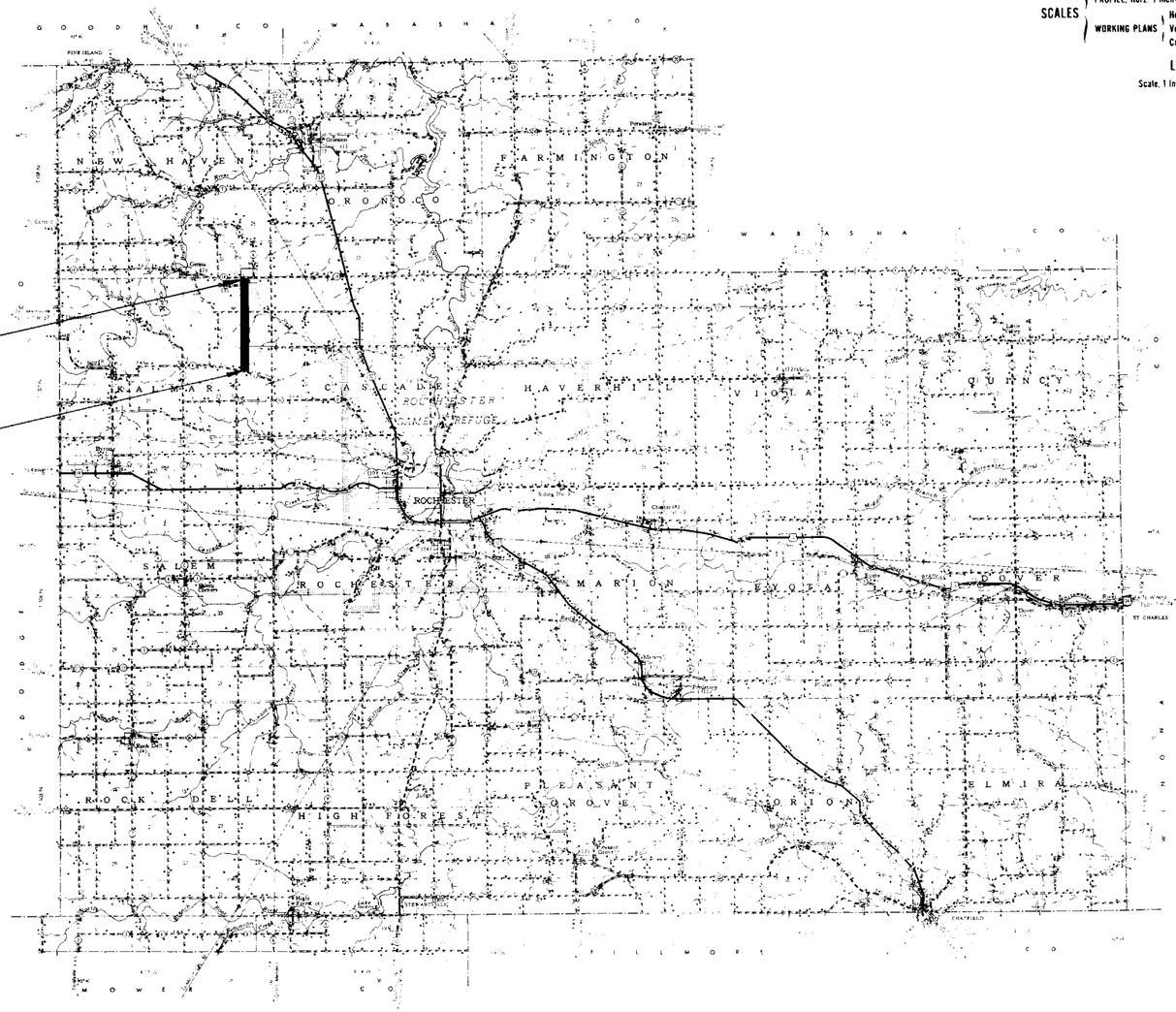


NOTE: SECTION NUMBERS READ FROM THE SOUTH



End S.A.P. 55-603-03
Sta. 142+06.55

Begin S.A.P. 55-603-03
Sta. 0+00



—SPECIFICATIONS—

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED MAY 1, 1959 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 25, 1959, SHALL GOVERN.

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BOX CULVERTS & CR. ROCK SURFACE

County State Aid Road No. 3

BETWEEN C.S.A.H. No. 4 AND Douglas

From 1621.6' N. & 140.10 W. S1/4 Cor. Sec. 13 To 28.5' E. of N. 1/4 Cor. of the N.W. 1/4 Sec. 1
Give proper reference to Sections, Township and Range T107N-R15W T107N-R15W

GROSS LENGTH 14206.55 FEET 2.6906 MILES
BRIDGES LENGTH 0 FEET 0 MILES
EXCEPTIONS LENGTH 0 FEET 0 MILES
NET LENGTH 14206.55 FEET 2.6906 MILES

MINN. PROJ. _____

SCALES
- PLAN, 1 Inch = 200 Feet
- PROFILE, Horz. 1 Inch = 200 Feet, Vert. 1 Inch = 20 Feet
- WORKING PLANS: Horz. 1 Inch = 100 Feet; Vert. 1 Inch = 10 Feet; Cross-Section 1 Inch = 10 Feet

LAYOUT
Scale, 1 Inch = 10560 Feet

INDEX OF SHEETS

Sheet No. 1. Title Sheet & Layout Map
" No. 2. Est. Quantities & Typical Sec.
" No. 3. To 7 Plan & Profile
" No. 8 To 28 Cross Sections

DESIGN SPEED 50 M.P.H.

ALL APPICABLE FEDERAL, STATE AND LOCAL LAWS WILL BE COMPLIED WITHIN THE CONSTRUCTION OF THIS PROJECT.

OLMSTED COUNTY HIGHWAY ENGINEER

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

COUNTY ENGINEER _____ DATE _____

COUNTY _____ REG NO _____

RECOMMENDED FOR APPROVAL _____ 19__
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL [illegible] 19 60

APPROVED [illegible] 1960
STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DISTRICT ENGINEER _____ DATE _____

State Aid Proj. No. 55-603-03

Olmsted County, Minnesota County Proj. No. _____ Plan No. _____ Sheet No. 1 of 28 Sheets

H. A. ROGERS CO. Minneapolis

FORM 129 C - # 1 Rev. '46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.		FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5N	MINN.					

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
	2101.502	Clearing	Tree	147
	2101.507	Grubbing	Tree	151
	2104.501	Remove Portable Culv.	Linear Feet	754
	2105.501	Class "A" Excavation	Cubic Yard	81,512
	2501.511-18"	F&I C.M.P. Culverts	Linear Feet	612
	2501.521-24"	F&I S.C.P. Culverts - 24" (Class 3)	Linear Feet	406
	2501.521-30"	F&I S.C.P. Culverts - 30" (Class 3)	Linear Feet	68
	2501.521-42"	F&I S.C.P. Culverts - 42" (Class 3)	Linear Feet	32
	2515.531-18"	F&I Metal Aprons For C.M.P. -18"	Apron	42
	2515.541-24"	F&I Conc. Aprons For S.C.P. - 24"	Apron	14
	2515.541-30"	F&I Conc. Aprons For S.C.P. - 30"	Apron	2
	2515.541-42"	F&I Conc. Aprons For S.C.P. - 42	Apron	2
	2411.501	Concrete	Cubic Yard	117.84
	2411.525	Class U Excavation	Cubic Yard	175.0
	2411.541	Reinforcement Bars	Pound	11118
*	2104.520	Remove Concrete Box Culvert	Structure	2
	2252.527	Crushed Rock Wearing Course in Place	Cubic Yard (V.M.)	6382

NOTE: Item 2252.527 Includes 395 Cu.Yds. For Approaches And 60 Cu.Yds. For Twp. Roads

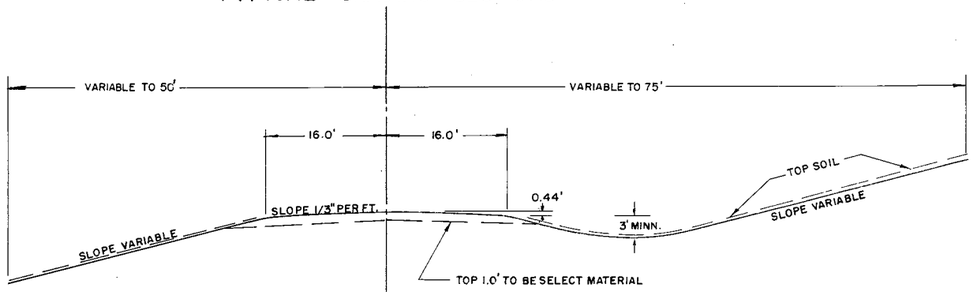
* Sta. 89+29
89+72

STANDARD DETAIL PLATES

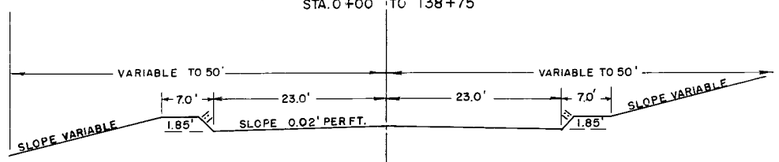
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
3100 B	Concrete Aprons For Reinforced Concrete
3123 A	Metal Aprons For C.M. Pipes

TYPICAL GRADING SECTIONS

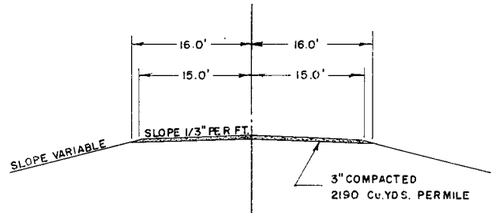


STA. 0+00 TO 138+75

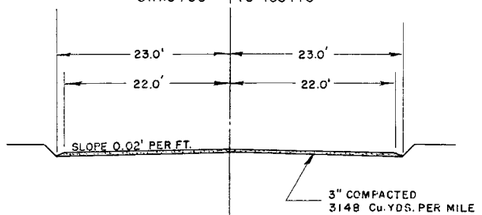


STA. 138+75 TO 142+06.5

TYPICAL BASE & SURFACE SECTIONS



STA. 0+00 TO 138+75



STA. 138+75 TO 142+06.5

SPECIAL DETAILS

NOTE: Material from the 1.0' of the Natural Topsoil shall not be used in the upper 1.0' of the Roadway. Part of this material shall be spread uniformly on the slope and ditch bottom to a depth of 3". No payment in addition to the Contract Price for Class "A" Excavation will be made for spreading the topsoil as provided above, nor will any undercutting be made in excavation prior to placing the topsoil be measured for payment.

NOTE: Corrugated Metal and Sectional Concrete Pipe Culvert excavation will be considered incidental and will be under unit price for Furnish and Install Culvert Pipe.

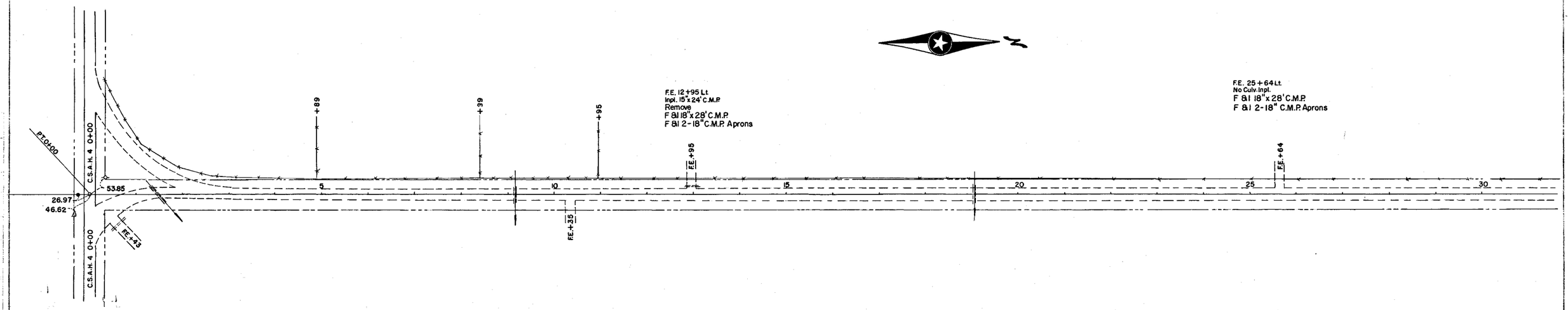
NOTE: Subgrade Treatment
Excavation 1.0' below Profile Grade for compaction as shown on Plan and Profile Sheets. Excavation has been computed and is included in Balanced Quantities. Backfill with Select Material from R.O.W. Tapers shall be 50:1 in all cases.

NOTE: Place Sectional Concrete Pipe on Class "C" Bedding.

S. A. P. 55-603-03

Olmsted County, Minn. Proj. No. Plan No. Sheet No. 2 of 28 Sheets

DAHMS PHOTO PRINT CO.
MPLS. 1, MINN.



F.E. 0+43 Rt.
Inpl. 15"x24' C.M.P.
Remove
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

1+56 ℄ Culv.
Inpl. 15"x36' C.M.P.
Remove
No Culv. Req'd

9+16 ℄ Culv.
Inpl. 24"x38' C.M.P.
Remove
F & I 24"x44' S.C.P.
F & I 2-24" S.C.P. Aprons

F.E. 10+35 Rt.
No Culv. Inpl.
No Culv. Req'd.

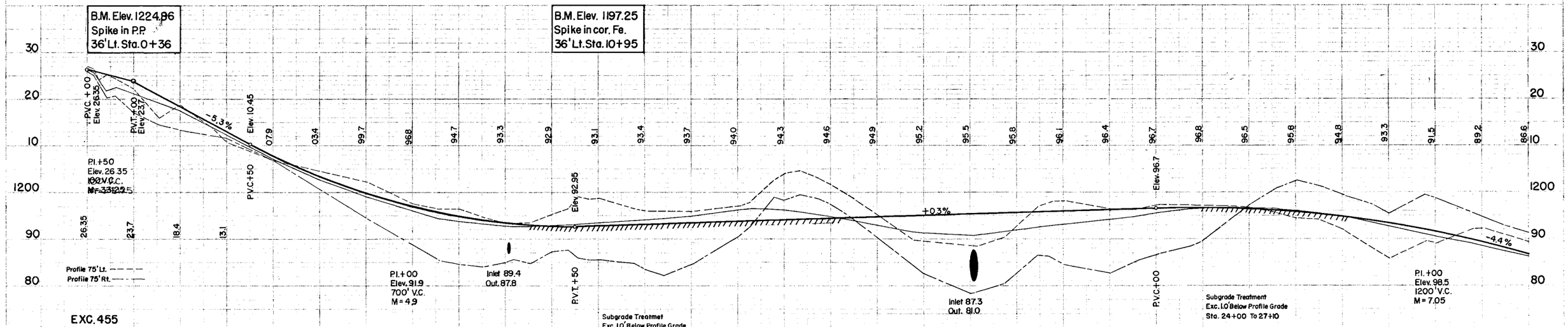
F.E. 12+95 Lt.
Inpl. 15"x24' C.M.P.
Remove
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

19+07 ℄ Culv.
Inpl. 18"x46' C.M.P.
Remove
F & I 24"x78' S.C.P.
F & I 2-24" S.C.P. Aprons

F.E. 25+64 Lt.
No Culv. Inpl.
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

B.M. Elev. 1224.86
Spike in P.P.
36' Lt. Sta. 0+36

B.M. Elev. 1197.25
Spike in cor. Fe.
36' Lt. Sta. 10+95



EXC. 455
EMB. 316

EXC. 5037
EMB. 3177

EXC. 6084
EMB. 3974

EXC. 3770
EMB. 1996

+00 +63 +35 +36 +85

1226.3 +13
23.9 +26
21.8 +42
22.4 +63
21.0
19.0 +55
17.5
14.3 +63
12.2
07.1
1202.8
99.0
95.9
94.5 +55
93.8
93.3 +50
92.8 +17
92.7 +21
92.7 +55
1192.9
93.1 +34
93.2 +56
93.4 +87
93.5
93.9 +76
94.0
94.3 +40
94.9
96.2 +26
96.4 +26
96.4 +77
1196.2
95.8 +31
95.2 +70
94.8
94.0 +46
92.8
91.5 +75
91.2
90.8 +08
90.9 +08
91.5 +73
1192.0
92.6 +44
92.8 +67
93.1
94.1
94.8 +52
95.5
96.3 +70
96.6
96.7 +54
1196.6
26.5 +52
96.6
95.6 +44
94.8
93.4 +64
92.7
91.0 +75
90.5
88.9 +79
1188.4
86.1

0 5 10 15 20 25 30

S. A. P. 55-603-03

F.E. 40+11 Lt.
No Culv. Inpl.
No Culv. Req'd

F.E. 42+08 Lt.
No Culv. Inpl.
No Culv. Req'd

F.E. 49+41 Lt.
Inpl. 15"x20' C.M.P.
Remove
F & I 18" x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

F.E. 36+63 Rt.
Inpl. 18"x 30' C.M.P.
Remove
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

41+45 ℄ Conc. Box Culv.
Inpl. 8'x6'x 51'
Extend 18' Lt. & Extend 19' Rt.
Class A Concrete 53.6 Cu.Yds.
Reinf. Steel 5342 lbs.
Class U Excavation 65.0 Cu.Yds.

F.E. 41+90 Rt.
No Culv. Inpl.
No Culv. Req'd

F.E. 46+75 Rt.
No Culv. Inpl.
F & I 15"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

50+79 ℄ Culv.
Inpl. 36"x44' C.M.P.
Remove
F & I 30"x 68' S.C.P.
F & I 2-30" S.C.P. Aprons
Pl. Ditch Block

57+88 ℄ Culv.
Inpl. 24"x 42' C.M.P.
Remove
F & I 24"x 76' S.C.P.
F & I 2-24" S.C.P. Aprons

B.M. Elev. 1146.76
Spike in 48" Cottonwood
37' Lt. Sta. 42 +45

P.V.T. +00
Elev. 72.1

-4.4%

P.V.C. +00
Elev. 63.3

P.I. +00
Elev. 45.7
800' V.C.
M = 3.70

Elev. 42.9

P.V.T. +00

-0.7%

P.V.C. +30.7692
Elev. 36.38492

P.I. +30.7692
Elev. 34.9846
400' V.C.
M = 0.65

P.V.T. +30.7692
Elev. 36.08461

+0.6%

Profile 75' Lt. ——
Profile 75' Lt. ——

Subgrade Treatment
Exc. 10' Below Profile Grade
Sta. 31+40 to 37+10

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 43+00 to 46+50

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 51+40 To 56+00

Inlet 28.0
Out. 27.3

Inlet 32.5
Outlet 29.5

Inlet 28.2
Outlet 21.7

EXC. 12708
EMB. 7366

EXC. 16684
EMB. 10846

S. A. P. 55-603-03

F.E. 62+73 Lt.
Inpl. 15"x16" C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P.

F.E. 64+76 Lt.
Inpl. 15"x16' C.M.P.
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 76+12 Lt.
Inpl. 15"x18' C.M.P.
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 82+32 Lt.
Inpl. 12"x20' C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 85+43 Lt.
No Culv. Inpl.
No Culv. Req'd

Twp. Rd. Lt. 89+50
No Culv. Inpl.
No Culv. Req'd

89+72 ℄ Box Culv.
Inpl. 4'x2'x37'
Remove
F&I 24"x62' S.C.P.
F&I 2-24" S.C.P. Aprons

Δ 89°49'55"
R 100'
31.02
62.78
64.20
39.52
47.06
P.C. 90+26.61

F.E. 62+18 Rt.
No Culv. Inpl.
No Culv. Req'd

F.E. 66+73 Rt.
Inpl. 15"x 20' C.M.P.
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 69+33
Inpl. 15"x20' C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

74+63 ℄ Box Culv.
Inpl. Double 7'x5'x26'
Extend 15' Lt. & 16' Rt.
Class A Concrete 64.24
Reinf. Steel 5776 lbs.
Class U Exc. 110 Cu. Yds.

F.E. 82+32 Rt.
Inpl. 12"x 20' C.M.P.
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 85+33 Rt.
No Culv. Inpl.
No Culv. Req'd

89+29 ℄ Box Culv.
Inpl. 4'x2'x29'
Remove
F&I 24"x66' S.C.P.
F&I 2-24" S.C.P. Aprons

Twp. Rd. Rt. 89+50
No Culv. Inpl.
No Culv. Req'd

B.M. Elev. 1124.21
Spike in T.P.
22' Rt. Sta. 69+25

B.M. Elev. 1103.88
X in S.W. Cor. Hdwl.
19' Lt. Sta. 74+28

B.M. Elev. 1122.90
Spike in P.P.
21' Lt. Sta. 89+72

+0.6%
P.V.C. +17.9245
Elev. 37.9075
P.I. +67.9245
Elev. 40.6075
900' V.C.
M = 5.9625
-4.7%
Elev. 19.4575
Elev. 18.5396
P.V.T. +17.9245
P.V.C. +37.3626
P.I. +37.3626
Elev. 99.7440
800' V.C.
M = 9.1
+4.4%
Elev. 17.3439
Elev. 24.5
P.V.C. +00
P.V.T. +37.3626
P.I. +00
Elev. 42.1
800' V.C.
M = 6.9
-2.5%
Elev. 32.1
Elev. 31.0
P.V.T. +00
P.V.C. +44
P.I. +44
Elev. 26.0
400' V.C.
M = 1.25

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 63+10 To 68+50

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 80+30 To 85+78

Inlet 97.0
Out. 96.7

Inlet 22.7
Out. 19.0

Inlet 22.6
Out. 18.5

EXC. 10393
EMB. 6965

EXC. 3000
EMB. 2017

EXC. 9654
EMB. 6410

S.A.P. 55-603-03

F.E 92+78 Lt.
Inpl. 12'x24' C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 96+20 Lt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18"C.M.P. Aprons

101+30 ℄ Culv.
Inpl. 24"x36' C.M.P.
Remove
F&I 24"x46' S.C.P.
F&I 2-24" S.C.P. Aprons

F.E. 107+53 Lt.
Inpl. 6'x20' C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18"C.M.P. Aprons

F.E 109+23 Lt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18"C.M.P. Aprons

F.E. 115+79 Lt.
Inpl. 15"x26' C.M.P.
Remove
No Culv. Req'd

N

PLAN

P.I. 92+58.35
Δ Rt. 2°19'
D 0°30'
T 231.74'
L 463.34'

Farm Ent. 95+25 Rt.
No Culv. Inpl.
F&I 18"x32' C.M.P.
F&I 2-18"C.M.P. Aprons

F.E. 107+53 Rt.
No Culv. Inpl.
No Culv. Req'd

P.I. 108+39.12
Δ Lt. 6°32'
D 2°00
T 163.51
L 326.66

P.I. 115+30.31
Δ Rt. 3°31'
D 1°00'
T 175.89
L 351.67

B.M. Elev. 1124.12
Spike in T.P.
27' Rt. Sta. 108+33

B.M. Elev. 1116.74
Spike in P.P.
41.' Rt. Sta. 115+78

Elev. 26.06
Elev. 26.06
P.V.T.+44
P.V.C.+54.43037
P.I.+54.43037
Elev. 26.06
400' V.C.
M = 0.395
-2.3%
-0.0%
Elev. 24.42001
R.V.T.+54.43037
-0.7%
Elev. 22.48
P.V.C.+00
P.I.+00
Elev. 20.9
400' V.C.
M=0.6950
Inlet 17.3
Out. 15.7
Elev. 22.1
P.V.T.+00
+0.6%
Elev. 24.83468
P.V.C.+55.7803
P.I.+55.78034
Elev. 27.23468
800' V.C.
M= 3.46
Elev. 15.79469
P.V.T.+55.7803
-2.86%

Profile 75' Lt. ----------
Profile 75 Rt. ——————

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 93+50 To 95+60

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 109+10 To 114+00

EXC. 1535
EMB. 1023

EXC. 1668
EMB. 1128

EXC. 3539
EMB. 2276

EXC. 1897
EMB. 1296

S.A.P. 55-603-03

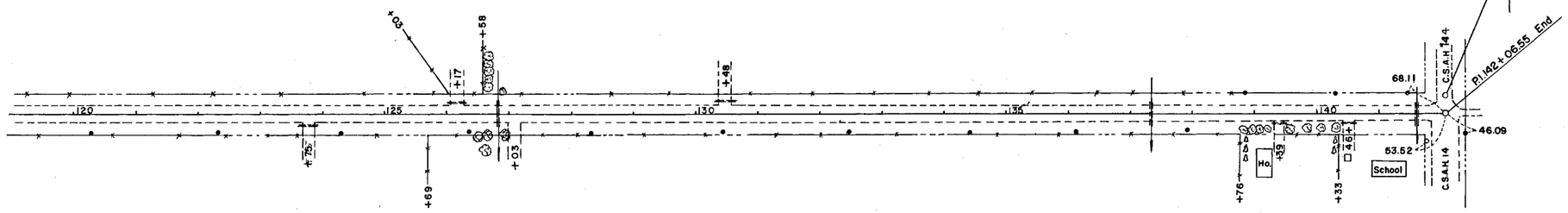
F.E. 126 + 17
Inpl 18" x 20' CMP
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P.

126 + 82 ℄ Culv.
Inpl 36" x 40' CMP
Remove
F&I 42"x32' S.C.P.
F&I 2-42" S.C.P. Aprons

F.E. 130 + 48
Inpl 18" x 20' CMP
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P.

137 + 33 ℄ Culv.
Inpl 24" x 34' CMP
Remove
F&I 24"x34' S.C.P.
F&I 2-24" S.C.P. Aprons

141 + 60 ℄ Culv.
Inpl 24" x 40' CMP
Remove
No Culv. Req'd



F.E. 123 + 75
Inpl 18" x 20' CMP
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P.

F.E. 127 + 03
No Culv. Inpl
No Culv. Req'd

F.E. 139 + 39
Inpl 15" x 20' CMP
Remove
No Culv. Req'd

F.E. 140 + 46
Inpl 15" x 20' CMP
Remove
No Culv. Req'd

Cl. 7 Gr. 6
B.M. Elev. 1087.32
Spike in T.P.
32' Rt. Sta. 126+39

Cl. 9 Gr. 9
B.M. Elev. 1082.23
Spike in 30" Maple Tree
31' Rt. Sta. 281+25 on
C.S.A.H. 14, East

