Form 413 Rev. 1959

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 RIGHT-OF-WAY 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

T.108N. R.24W. / 35 36 / 2 1 / R.25W. T.107N.

CENTER SECTION 35 T.108N. R.24W.

12 / 13

NOTE: SECTION NUMBERS READ FROM THE SOUTH

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

Grading, Box Culvert and

CONSTRUCTION PLAN FOR Crushed Rock Base Inplace

County State Aid Highway No. 8

BETWEEN CSAH 6 AND S.1/4 Cor. Sec 29 T105N-R14W

From E.1/4 Cor. Sec 6 T104N-R14W To S.1/4 Cor. Sec 29 T105N-R14W

Give proper reference to Sections, Township and Range

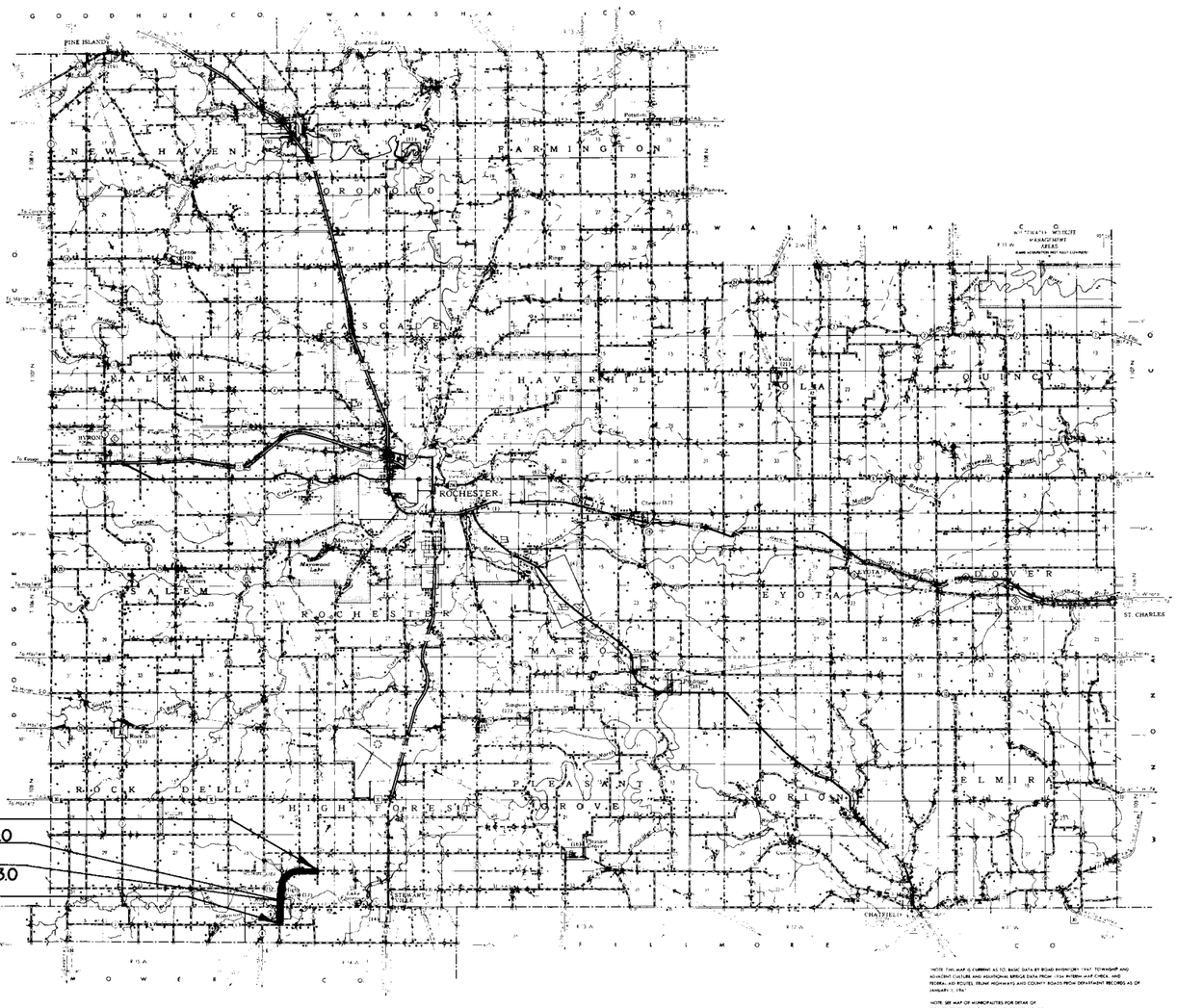
GROSS LENGTH 11,909.44 FEET 2.25557 MILES
BRIDGES LENGTH 0.00 FEET 0.00 MILES
EXCEPTIONS LENGTH 96.0 FEET 0.01818 MILES
NET LENGTH 11,813.44 FEET 2.23739 MILES

SCALES
PLAN, 1 Inch=100 Feet
PROFILE, Horz. 1 Inch=100 Feet, Vert. 1 Inch=10 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 6 Plan & Profile
" No. 7 To 27 Cross Sections



End S.A.P. 55-608-05
Sta. 119+09.44
Sta. 35+19.0
Exception
Sta. 34+23.0
Begin S.A.P. 55-608-05
Sta. 0+00

Design Speed 55 M.P.H.

Projected ADT 351

S. F. = 100

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

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 DISTRICT ENGINEER 19

RECOMMENDED FOR APPROVAL 19

APPROVED 19

STATE AID ENGINEER

—SPECIFICATIONS—

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JAN. 1, 1964 SHALL GOVERN.

NOTE: THIS MAP IS CURRENT AS TO: BASIC DATA BY ROAD INVENTORY 1967, TOWNSHIP AND MUNICIPAL CULTURE AND ADDITIONAL MISCLA DATA FROM 1966 INTERIM MAP CHECK, AND FEDERAL AID ROUTES, TRUNK HIGHWAYS AND COUNTY ROADS FROM DEPARTMENT RECORDS AS OF JANUARY 1, 1967

NOTE: SEE MAP OF MUNICIPALITIES FOR DETAIL OF COUNTY STATE AID HIGHWAYS AND COUNTY ROADS

State Aid Project No. 55-608-05

Olmsted County, Minnesota County Proj. No. Plan No. Sheet No. 1 of 27 Sheets

H. A. ROGERS CO. Minneapolis

FORM 129c - No. 2 Rev. '

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

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	MUNICIPAL	RURAL
2101.502	Clearing	Tree	111		
2101.507	Grubbing	Tree	61		
2104.501	Remove Portable Culverts	Lin. Ft.	600		
2104.520	Remove Conc Arch (Sta. 94+76)	Structure	One		
2104.520	Remove Conc Arch (Sta. 118+78)	Structure	One		
2105.501	Class A Excavation	Cu.Yd.	44965		
2105.502	Class B Excavation	Cu. Yd.	5240		
2105.506	Borrow Excavation Class A	Cu. Yd.	35281		
2105.504	Class SG Excavation	Cu. Yd.	7567		
2123.503	Motor Grader	Hour	15		
2123.508	15 C.Y. (min) Scraper	Hour	15		
2123.509	Dozer	Hour	15		
2123.511	75 H.P. Tractor	Hour	15		
2130.501	Water	M. Gal.	166		
2210.527	Crushed Rock Base Inplace	Cu.Yd. (V.M.)	6658		
2411.501	Concrete	Cu. Yd.	124.78		
2411.511	Structure Excavation Class U	Cu. Yd.	265		
2411.541	Reinforcement Bars	Lb.	18842		
2501.511	F&I 18" CMP Culverts	Lin. Ft.	470		
2501.511	F&I 24" CMP Culverts	Lin. Ft.	88		
2501.512	F&I 18" Span CMP-A Culverts	Lin. Ft.	406		
2501.521	F&I 24" RCP Culverts Cl. II	Lin. Ft.	210		
2501.521	F&I 24" RCP Culverts Cl. III	Lin. Ft.	56		
2501.521	F&I 30" RCP Culverts Cl. II	Lin. Ft.	80		
2501.521	F&I 48" RCP Culverts Cl. III	Lin. Ft.	42		
2501.522	F&I 58 1/2" Span RCP-A Culv. Cl. III	Lin. Ft.	100		
2515.531	F&I Metal Aprons for 18" CMP	Apron	28		
2515.531	F&I Metal Aprons for 24" CMP	Apron	6		
2515.532	F&I Metal Aprons for 18" Span CMP-A	Apron	22		
2515.541	F&I Conc Aprons for 24" RCP	Apron	8		
2515.541	F&I Conc Aprons for 30" RCP	Apron	2		
2515.541	F&I Conc Aprons for 48" RCP	Apron	2		
2515.542	F&I Conc Aprons for 58 1/2" Span RCP-A	Apron	4		

Note: Item 2210.527 includes 550 Cu. Yds. for Approaches and 290 Cu. Yds. for Twp, County Roads and Streets.

STANDARD DETAIL PLATES

Standard Detail Plates issued October 1, 19 and submitted for approval by the Division Engineer of the Public Roads Administration October 15, 19 shall govern

PLATE NO.	STANDARD DETAIL PLATES
3000C	Reinforced Concrete Pipe
3040	Corrugated Metal Pipe – Arch
3100D	Concrete Aprons for Reinforced Conc. Pipe
3102C	
3122C	Metal Aprons for CM Pipes-Arch Culv.
3123C	Metal Aprons for CM Pipes
9000	Approaches and Entrances

Note: Material from the upper 1.0' of the natural topsoil shall not be used in the upper 1.0' of the roadway. 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 Class "A" 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.

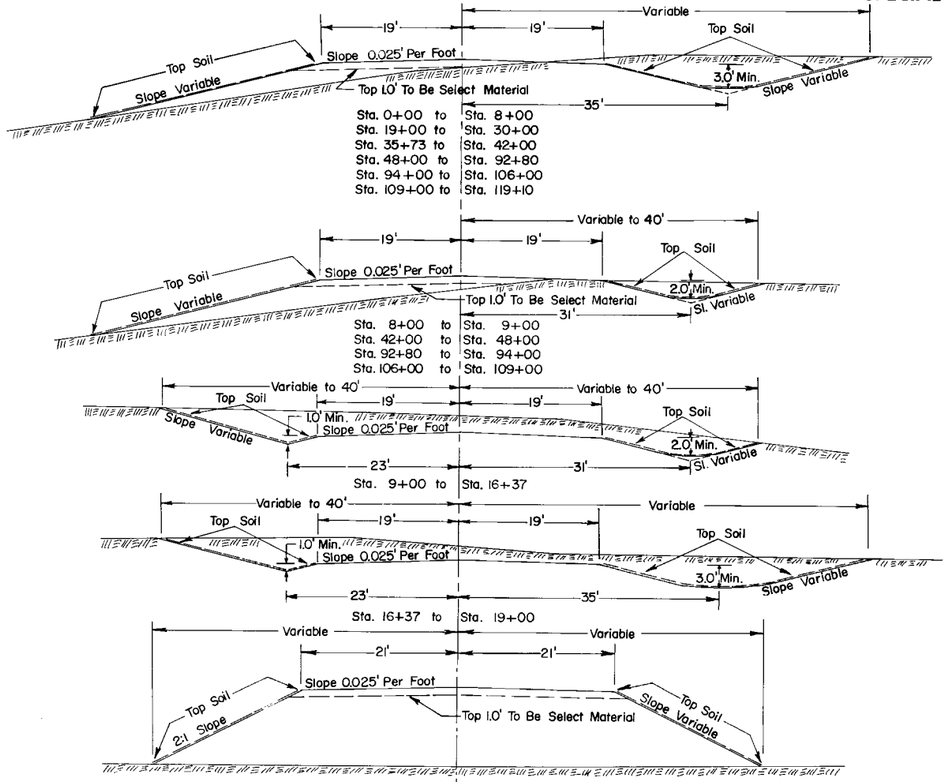
Note: Corrugated metal and Sectional Concrete pipe culvert excavation will be considered incidental, and will be under unit price for "Furnish and Install Culvert Pipe".

Note: Subgrade Treatment:
Excavate 1.0' below profile grade for compaction, as shown on the plan and profile sheets. Excavation has been computed and is listed as SG excavation. Backfill with select material from R.O.W. Tapers shall be 50:1 in all cases.

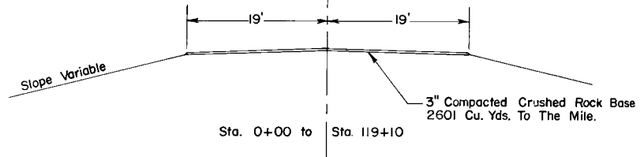
Note: Place Sectional Concrete Pipe on Class "B" and Class "C" Bedding.

Note: All dimensions and slopes shown on typical sections are approximate.

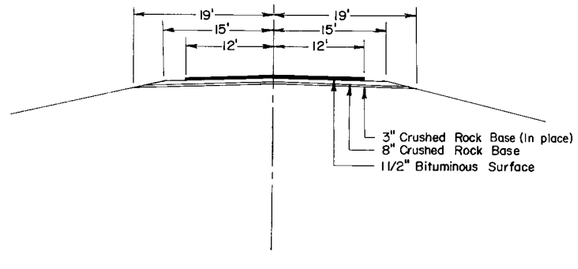
TYPICAL GRADING SECTIONS



TYPICAL BASE & SURFACE SECTIONS



TYPICAL FUTURE SECTION



SPECIAL DETAILS

H.A. ROGERS CO.
MPLS. MINN.

Olmsted County, Minn. Proj. No. 55-608-05 Plan No. _____ Sheet No. 2 of 27 Sheets

FED. ROAD DIST. NO.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS

8+25-68 Driveways Lt
Inpl 12"X80' CMP
Remove
FBI 18"Span X90' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

10+16 Driveway Lt
No Culv Inpl
No Culv. Req'd

12+09 Driveway Lt
Inpl 8"X18' CMP
Remove
FBI 18"Span X 32' CMP-A
FBI 2-18"Span Metal Aprons
For CMP-A

12+64 Street Lt
No Culv Inpl
No Culv. Req'd

14+42 Driveway Lt
Inpl 10"X 30' CMP
Remove
FBI 18" Span X 32' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

15+99 Driveways Lt
Inpl 15"X 25' CMP
Remove
FBI 18"Span X 32' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

16+47 Driveway Lt
No Culv Inpl
FBI 18" Span X 32 CMP-A
FBI 2-18"Span Metal Aprons
For CMP-A

17+57 Driveway Lt
No Culv Inpl
FBI 18"Span X32' CMP-A
FBI 2- 18" Span Metal Aprons
For CMP-A

19+08 Driveway Lt
No Culv Inpl
FBI 18"Span X 32' CMP-A
FBI 2-18" Metal Aprons
For CMP-A

25+37 Twp Rd Lt
No Culv Inpl
No Culv. Req'd

20+21 Const. FE Lt
FBI 18" Span X 32' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

Begin S.A.P 55-608-05
Sta. 0+00

7+35 ℄ Culv
Inpl 24"X 32' CMP
Remove
FBI 24"X 68' RCP Class II
FBI 2-24" Conc. Aprons
For RCP
Place on "C" Bedding

8+71 FE Rt
Inpl 15"X 24' CMP
Remove
FBI 18" Span X 28' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

10+24 Driveway Rt
No Culv Inpl
No Culv. Req'd

12+27 ℄ Culv
Inpl 12"X 26' CMP
Remove
No Culv. Req'd

13+17 ℄ Culv
Inpl 15"X 24' CMP
Remove
No Culv. Req'd

12+66 Street Rt
No Culv Inpl
FBI 18" Span X 32' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

16+44 Street Rt (CSAH 8)
No Culv Inpl
FBI 18" Span X32' CMP-A
FBI 2-18" Span Metal Aprons
For CMP-A

20+60 Const. FE Rt
FBI 18"X32' CMP
FBI 2-18" Metal Aprons
For CMP

25+37 Twp Rd Rt
No Culv Inpl
No Culv. Req'd

25+15 Place ℄ Culv
FBI 24"X 56' RCP Class III
FBI 2-24" Conc. Aprons
For RCP
Place on "B" Bedding

PUBLIC SQUARE

P.I. 22+51.05
Rt 14°04'30"
2°00'
363.66'
703.75'

P.C. 18+97.37

P.T. 26+01.14

B.M. Elev. 1266.73
Spk in PP SE of Intersection

B.M. Elev. 1250.33
Spk in PP 30' Rt
Sta. 14+72

B.M. Elev. 1239.51'
Spk in TP 47' Rt
Sta. 24+94

Cl. 18 Gr. 18

Cl. 6 Gr. 3

Cl. 3 Gr. 2

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt

Profile 75' Rt

P.I. +00
Elev. 66.9
200' V.C.
M=1.25'

P.I. +00
Elev. 46.9
500' V.C.
M=4.25'

P.I. +00
Elev. 55.9
400' V.C.
M=1.75'

P.I. +00
Elev. 50.8
200' V.C.
M=0.275'

P.I. +00
Elev. 46.0
400' V.C.
M=0.2'

-3.0%

+1.8%

-1.7%

-0.6%

-1.0%

Inlet Elev. 45.8
Outlet Elev. 42.8

Inlet Elev. 37.5
Outlet Elev. 37.0

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 8+80 to Sta. 24+50

Note: Borrow 5458 (See sheet 4)

EXC	Class A+	7517
	Class SG	1756
EMB		8948

PLAN — SURVEYED, PLOTTED, GRADES CHECKED, ALIGNMENT CHECKED, R/T OR WY CHECKED, NOTE BOOK, NO.

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, R/T OR WY CHECKED, STRUCTURE NOTATIONS CHKD, NO.

DATE

BRUNING NO. 5697

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.
MADE IN U.S.A.

S.A.P. CSAH 8 55-608-05 Sheet No. 3 of 27 Sheets

FED. ROAD DIST. NO	STATE	FEDERAL PROJ. NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS

North

Fork

Grading Exception 34+23 to 35+19, Bridge to be Constructed during low flow per Ltr of 1965

RC 36+29.57

30

N14°04'30" E

38

66'

+75

CONSTRUCT TEMPORARY CONNECTIONS

Root

600'

River

BORROW PIT

PI. 40+02.95
Δ Lt 14°07'
D 1°54'
T 373.38'
L 742.93'

PT 43+72.50

+03 +62 +43 +70 +28 +83 +97 +49 +18

101.35' 51.75' 40 36.14' 62.44' 92.30' 85.53' 50 50 50 55

Pump Ho. Ho. Tile Outlet

66'

+78

37+62 FE Lt (Old Road)
No Culv Inpl
Fill 18"X 28' CMP
Fill 2-18" Metal Aprons
For CMP

42+70 Farm Ent. Lt
No Culv Inpl
Fill 18"X 32' CMP
Fill 2-18" Metal Aprons
For CMP

46+82 Farm Ent. Lt
Inpl 15"X 26' CMP
Remove
Fill 18"X 32' CMP
Fill 2-18" Metal Aprons
For CMP

52+19 CSAH 15 Lt
No Culv Inpl
No Culv. Req'd

34+30 Const. FE Rt
Fill 18"X 66' CMP
Fill 2-18" Metal Aprons
For CMP

34+75 FE Rt (Old Road)
Inpl 18"X 20' CMP
No Change

35+20 Bridge Rt. (Old Road)
Inpl. 70' Low Truss
2-12 1/2' Approach Spans
Wood Floor -Wood Stringers
No Change

39+70 ℄ Culv
Inpl 24"X 36' CMP
Remove
Fill 30"X 80' RCP Class II
Fill 2-30" Conc Aprons
For RCP
Place on "C" Bedding

46+78 FE Rt
Inpl 15"X 26' CMP
Remove
Fill 18"X 28' CMP
Fill 2-18" Metal Aprons
For CMP

48+77 ℄ Culv
Inpl 48"X 30' CMP
Remove
Fill 48"X 42' RCP Class III
Fill 2-48" Conc Aprons
For RCP
Place on "B" Bedding

P.C. 57+48.42

PLAN — SURVEYED — PLOTTED — DRAWN — CHECKED — QUANT. CHECKED — P.C. TECH. — P.C. OF FINAL — DATE — BY — NOTE BOOK — NO. — ALIGN. & GRAD. — R.W. & EASE. — STRUCTURE NO'S & TYPES

B.M. Elev. 1223.35'
X in SW Wing of Bridge

B.M. Elev. 1228.52
Spk in PP 36' Lt
Sta. 46+92

B.M. Elev. 1235.10'
Spk in PP 40' Rt
Sta. 52+43

Cl. 1 Gr. 1 — Cl. 3 Gr. 7 — Cl. 11 Gr. 11 — Cl. 14 Gr. 8

Finished ℄ Grades

1270 60 50 40 30 20 10 1200

40.0 39.0 38.0 37.2 36.4 35.8 35.3 34.8 34.3 33.8 33.3 32.8 32.3 31.8 31.3 30.8 30.3 29.8 29.3 28.8 28.5 28.6 29.0 29.9 31.1 32.7 34.5 36.3 38.0 39.4 40.4 40.9 41.0

PI. +40
Elev. 36.6
400' V.C.
M = 0.25'

-1.0 %

Elev. 38.6

P.V.C. +40.0

Elev. 35.6

P.V.T. +40.0

+80

+60

-0.5 %

Elev. 28.8

P.V.C. +00

Inlet Elev. 23.9
Outlet Elev. 22.0

2:1 Slope

3:1 Slope

Profile 75' Lt

Profile 75' Rt

Note: Borrow 26323

EXC Class A 473
Class SG 4

EMB 18480

PI. +00
Elev. 27.3
600' V.C.
M = 1.875'

Elev. 32.7

P.V.T. +00

+1.8 %

Elev. 37.2

P.V.C. +50

PI. +50
Elev. 44.4
800' V.C.
M = 3.4'

Inlet Elev. 24.0
Outlet Elev. 23.0

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 42+50 to Sta. 63+40

EXC Class A 11423
Class B 4789
Class SG 1978

EMB 12278

Present ℄ Grades

36.1 36.2 34.9 33.4 31.6 29.9 28.4 24.4 24.1 22.6 22.9 21.4 21.2 19.0 19.8 20.0 19.7 14.1 12.3 12.1 13.4 13.9 19.5 24.9 25.7 27.1 28.9 23.1 23.1 28.5 23.6 22.6 22.2.5 23.0 26.7 28.1 29.1 30.4 31.0 31.1 30.0 31.0 23.06 29.8 29.6 29.4 28.9 28.7 28.7 28.8 29.3 23.01 31.9 33.8 34.2 34.4 34.7 35.2 35.7 36.1 36.7 39.6 24.16 42.9 44.3 45.0 46.3 47.1 47.5

+59 +34 +65 +73 +35 +65 +37 +75 +17 End Fill +23 +29 +69 +11 Begin Fill +9 +19 +58 +73 +54 +66 +69 +37 +59 +58 +39 +24 +46 +63 +77 +34 +77 +82 +09 +49 +56 +79

30 35 40 45 50 55

BRUNING NO. 589T

SINGLE PLAN & PROFILE—DOTTED
CHARLES BRUNING COMPANY, INC.
MADE IN U.S.A.

S.A.P
CSAH 8 55-608-05 Sheet No. 4 of 27 Sheets

FED. ROAD DIST. NO.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS

62+20 Farm Ent. Lt (old Road)
Inpl 18"X26' CMP
No Change

66+14 ℄ Culv (old Road)
Inpl 24"X31' CMP
No Change

70+50 Const. FE Lt
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

77+79 FE Lt (old Road)
Inpl 18"X20' CMP
Remove
No FE Req'd

78+90 ℄ Culv (old Road)
Inpl 2-72"X26' CMP
Remove
No Culv Req'd

Obliterate Old Road
2.42 Acres

Note: Payment for Obliterating old Rood to be by equipment hours. (See special provisions)

85+55 FE Lt
Inpl 18"X20' CMP
Remove
F&I 24"X28' CMP
F&I 2-24" Metal Aprons
For CMP

POT 83+00

POST 59+69

Const. 80' Sh. Radius

PI 64+37.18
Rt 62°00'
5°00'
688.76'
1240.0'

N61°57'30"E

PRT 69+88.42

POT 73+76.53

PC 57+48.42

61+50 Const. Twp Rd Lt
F&I 18"X36' CMP
F&I 2-18" Metal Aprons
For CMP

70+50 Const. FE Rt
F&I 24"X28' CMP
F&I 2-24" Metals Aprons
For CMP

71+54 Const. ℄ Box Culv
C10GD X 48' Skew 15°
Conc. 124.78 Cu.Yds.
Reinf. Bars 18842 lbs
Class U Exc. 265 Cu.Yds.

74+30 Const. Farm Ent. Lt
F&I 24"X32' CMP
F&I 2-24" Metal Aprons
For CMP

86+63 FE Rt
No Culv Inpl
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

Cl. 51 Gr. 7

B.M. Elev. 1240.35
Spk in PP 60' Lt
Sta. 62+21

B.M. Elev. 1245.72
Spk in PP 65' Rt
Sta. 86+44

Finished ℄ Grades

Profile 75' Lt

Profile 75' Rt

PI. +50
Elev. 44.4
900' VC
M=3.4%

-1.6 %

PVT +50

PVC +75

PVT +75

PI. +75
Elev. 31.2
600' VC
M=1.2%

0.0%

PVC +00

PVT +00

PI. +00
Elev. 31.2
600' VC
M=0.975%

+1.3 %

Inlet Elev. 23.0
Outlet Elev. 22.6

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 81+50 to Sta. 95+00

EXC Class A 7399
Class B 341
Class SG 485

EMB 4069

EXC Class A 9615
Class B 55
Class SG 1091

EMB 6474

Present ℄ Grades

PLAN
SURVEYED
ALIGNMENT CHECKED
NOTE BOOK
NO.

PROFILE
SURVEYED
PROFILE CHECKED
NOTE BOOK
NO.
GRADES CHECKED
STRUCTURE NOTATNS CHKD

DATE
BY

BRUNING NO. 5897

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.
MADE IN U.S.A.

S. A. P.
CSAH 8 55-608-05 Sheet No. 5 of 27 Sheets

ED. ROAD DIST No.	STATE	FEDERAL PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS

92+47 Twp Rd Lt
No Culv Inpl
F&I 18"X36' CMP
F&I 2-18" Metal Aprons
For CMP

94+03 Farm Ent Lt
Inpl 15"X28' CMP
Remove
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

106+19 FE Lt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

119+09 CSAH 8
No Culv Inpl
No Culv. Req'd

End 55-608-05
Sta. 119+09.44

T.109N. R.14W. R.13W. T.108N. 30 29 31 32

P.I. 92+67.42
Corner Assumed

Twp Rd +47

Ho.

Tile Outlet

P.O.T. 106+09.89

P.I. 119+09.44
Inpl 1/2" Steel Rod

CSAH 8 +09

Twp Road

P.I. 92+67.42
Rt 28°40'
3°30'
418.35'
819.05'

P.C. 88+49.07

P.T. 96+68.12

94+76 ℄ Culv
Inpl 36"X24' Conc Arch
Remove
F&I 58 1/2" Span X 50' RCP-A
Class III, F&I 2-58 1/2" Span
Conc Aprons for RCP-A
Place on "B" Bedding

94+94 ℄ Culv
Inpl 30"X40' CMP
Remove
F&I 58 1/2" Span X 50' RCP-A Class III
F&I 2-58 1/2" Span Conc Aprons
For RCP-A
Place on "B" Bedding

106+19 FE Rt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

107+48 Farm Ent Rt
Inpl 18"X28' CMP
Remove
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

112+97 ℄ Culv
Inpl 18"X34' CMP
Remove
F&I 24"X58' RCP Class II
F&I 2-24" Conc Aprons
For RCP
Place on "C" Bedding
Place Ditch Block

118+78 ℄ Culv
Inpl 24"X30' Conc Arch
Remove
F&I 24"X84' RCP Class II
F&I 2-24" Conc Aprons
For RCP
Place on "C" Bedding

119+13 Farm Ent. Rt
No Culv Inpl
No Change

Cl. 2 Gr. 2

B.M. Elev. 1254.05'
Spk in TP 52' Lt
Sta. 93+80

Cl. 2 Gr. 2

B.M. Elev. 1272.08
Spk in PP 27' Rt
Sta. 107+10

Cl. 2 Gr. 2

B.M. Elev. 1265.96'
Spk in PP SE of Intersection

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt
Profile 75' Rt

Elev. 50.7

Elev. 53.3

-0.0%

+1.3%

+2.9%

-0.4%

Pt. +44.82758
Elev. 53.3
400' V.C.
M = 1.45'

Pt. +00
Elev. 53.3
400' V.C.
M= 0.650'

Inlet Elev. 49.0
Outlet Elev. 48.0

Pt. +00
Elev. 75.2
800' V.C.
M = 3.3'

Subgrade Treatment
Excavate 1.0 Below Profile Grade
Sta. 98+00 to Sta. 118+25

Inlet Elev. 68.1
Outlet Elev. 64.5

Inlet Elev. 65.1
Outlet Elev. 63.1

EXC Class A 6748
EXC Class B 2
Class SG 1986
EMB 4537

EXC Class A 1114
Class SG 158
EMB 757

EXC CL A 676
CL B 53
CL SG 109
EMB 438

90 95 100 105 110 115 120

1290 80 70 60 50 40 30 1220

PLAN
DRAWN
PLOTTED
GRADES CHECKED
R.O.W. CHECKED
NOTE BOOK
NO.

PROFILE
DRAWN
PLOTTED
GRADES CHECKED
R. RUSTAD
NOTE BOOK
NO.

DATE
BY

ERBRUHN NO. 5897

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.
MADE IN U.S.A.

S. A. P.
CSAH 8 55-608-05 Sheet No. 6 of 27 Sheets