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 T.107N. R.24W.

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

12 13

NOTE: SECTION NUMBERS READ FROM THE SOUTH

STATE OF MINNESOTA

# DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading and Crushed Rock Base

COUNTY ROAD M

BETWEEN CSAH 11 AND CSAH 24

From S1/4 Cor. Sec. 3 T107N-R13W To S1/4 Cor. Sec 6 T107N-R12W

Give proper reference to Sections, Township and Range

GROSS LENGTH 15,630.69 FEET 2.96035 MILES
BRIDGES LENGTH — FEET — MILES
EXCEPTIONS LENGTH — FEET — MILES
NET LENGTH 15,630.69 FEET 2.96035 MILES

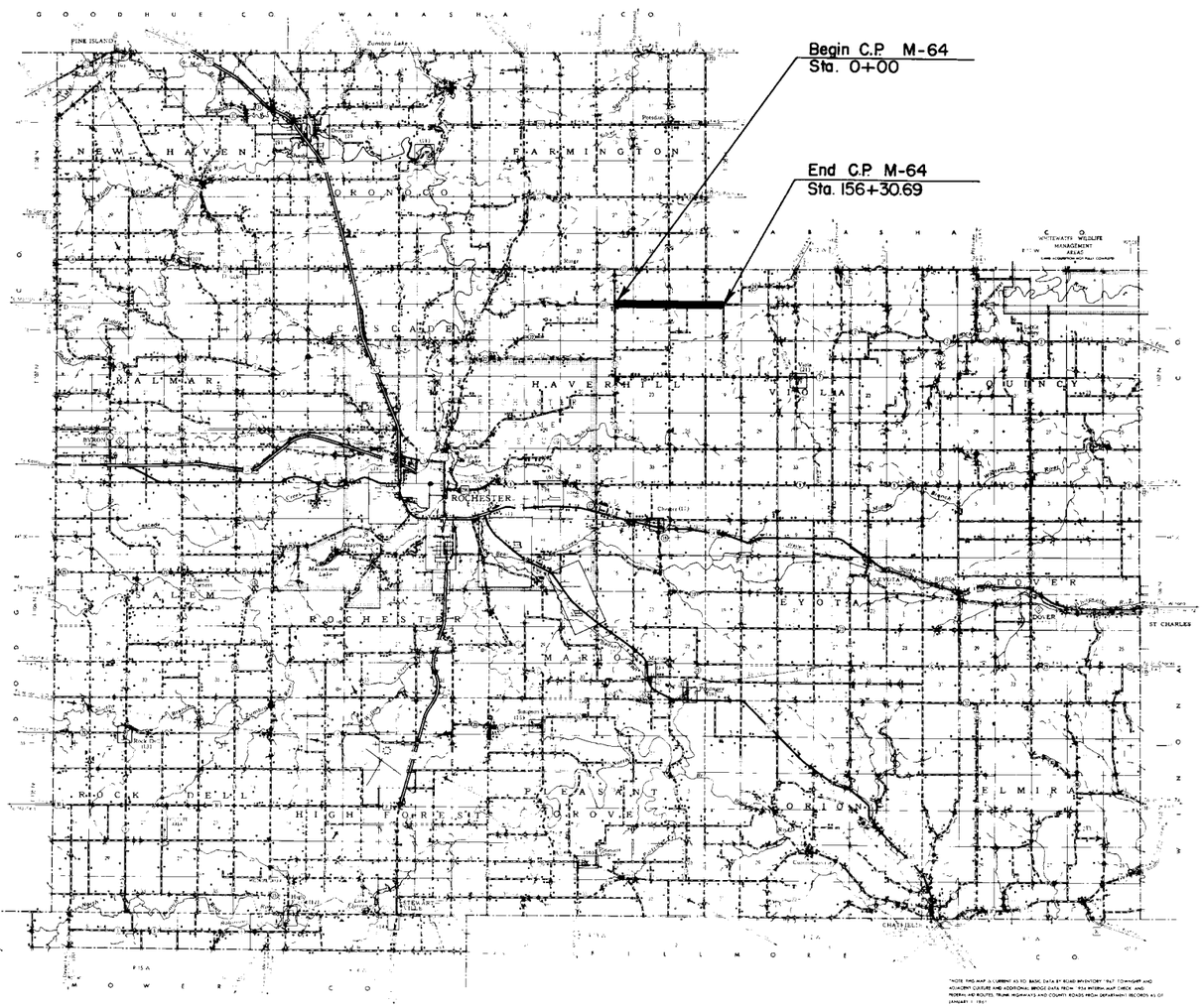
SCALES
PLAN, 1 Inch=100 Feet
PROFILE, Horz. 1 Inch=100 Feet. Vert. 1 Inch=10 Feet
WORKING PLANS Horz. 1 Inch=100 Feet; Vert. 1 Inch=10 Feet; Cross-Section 1 Inch=10 Feet

LAYOUT
Scale, 1 Inch=1056.0 Feet

MINN. PROJ. _____

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 32 Cross Sections


Design Speed 50 M.P.H.
Projected A.D.T. 122

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.

_____ DATE _____
COUNTY ENGINEER

_____ COUNTY REG. NO. _____

RECOMMENDED FOR APPROVAL Gerald Schutten 3/31/1964
DISTRICT ENGINEER SA

RECOMMENDED FOR APPROVAL L A. Hoffman 3-25 1964

APPROVED _____ 19__ _____
STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

—SPECIFICATIONS—

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

Minn. Proj. No. _____ State Proj. No. _____ State Aid Project No. _____

Olmsted County, Minnesota County Proj. No. C.P M-64 Plan No. _____ Sheet No. 1 of 32 Sheets

H. A. ROGERS CO. Minneapolis

FORM 129 C - 6 1 REV. '46

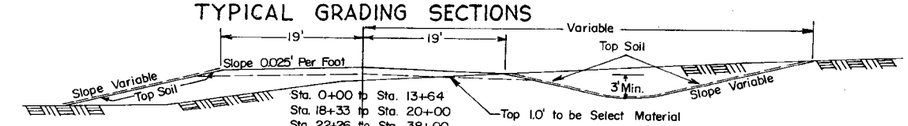
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 5N | MINN. | | | | | |

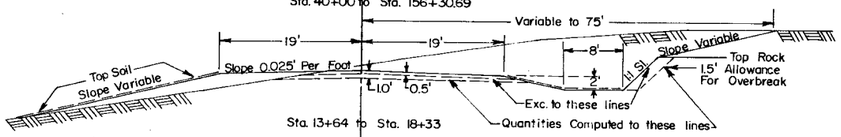
## ESTIMATED QUANTITIES

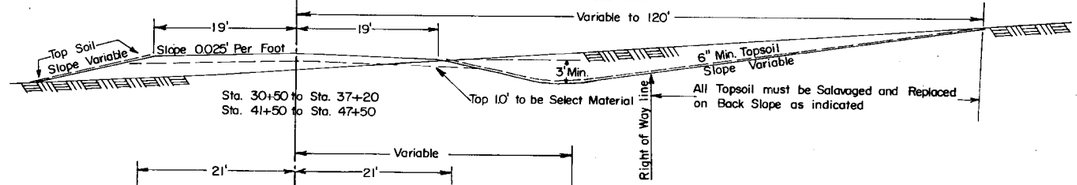
| SPECIFICATION NO. | ITEM | UNIT | TOTAL ESTIMATED QUANTITIES |
|---|---|---|---|
| 2101.502 | Clearing | Tree | 204 |
| 2101.507 | Grubbing | Tree | 182 |
| | | | |
| 2104.501 | Remove Portable Culverts | Linear Foot | 770 |
| 2104.520 | Remove W46 X 42' + 45° Concrete Box Culv. (Sta. 10+15) | Structure | One |
| | | | |
| 2105.501 | Class A Excavation | Cu. Yd. | 130377 |
| 2105.502 | Class B Excavation | Cu. Yd. | 5026 |
| 2105.504 | Class SG Excavation | Cu. Yd. | 9064 |
| | | | |
| 2130.501 | Water | M. Gal. | 204 |
| 2211.0.527 | Crushed Rock Base Inplace | Cu. Yd. (V.M.) | 8150 |
| | | | |
| 2501.511 | FAI 18" CMP Culverts | Linear Foot | 800 |
| 2501.511 | FAI 24" CMP Culverts | Linear Foot | 76 |
| 2501.511 | FAI 48" CMP Culverts | Linear Foot | 36 |
| | | | |
| 2501.521 | FAI 24" RCP Culverts Class II | Linear Foot | 132 |
| 2501.521 | FAI 30" RCP Culverts Class II | Linear Foot | 232 |
| 2501.521 | FAI 36" RCP Culverts Class II | Linear Foot | 64 |
| 2501.521 | FAI 36" RCP Culverts Class IV | Linear Foot | 218 |
| 2501.521 | FAI 42" RCP Culverts Class II | Linear Foot | 52 |
| 2501.521 | FAI 72" RCP Culverts Class II | Linear Foot | 12 |
| | | | |
| 2501.536 | Install 72" RCP Culverts | Linear Foot | 66 |
| | | | |
| 2515.531 | FAI Metal Aprons For CMP 18" | Apron | 54 |
| 2515.531 | FAI Metal Aprons For CMP 24" | Apron | 2 |
| 2515.531 | FAI Metal Aprons For CMP 48" | Apron | 2 |
| | | | |
| 2515.541 | FAI Conc Aprons For SCP 24" | Apron | 4 |
| 2515.541 | FAI Conc Aprons For SCP 30" | Apron | 6 |
| 2515.541 | FAI Conc Aprons For SCP 36" | Apron | 6 |
| 2515.541 | FAI Conc Aprons For SCP 42" | Apron | 2 |
| 2515.541 | FAI Conc Aprons For SCP 72" | Apron | 2 |

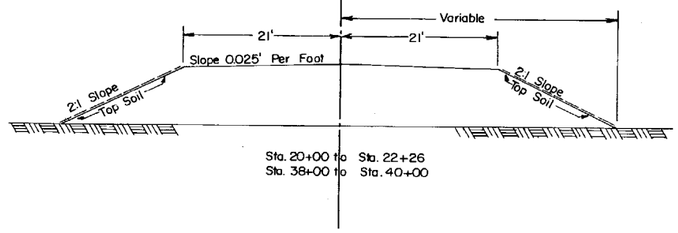
Note: Item No. 2211.0.527 Includes 360 Cu. Yds. For F. Ents. and 90 Cu. Yds. For TWP Roads.

## TYPICAL GRADING SECTIONS

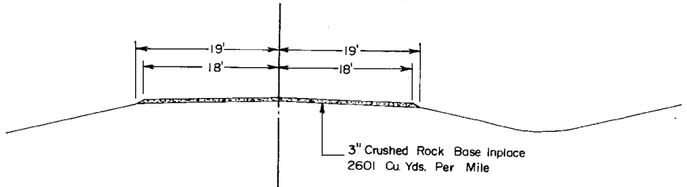



## TYPICAL BASE & SURFACE SECTIONS




## STANDARD DETAIL PLATES

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

| PLATE NO. | DESCRIPTION |
|---|---|
| 3000 B | Reinforced Concrete Pipe |
| 3100 C | Concrete Apron For Reinforced Concrete Pipe |
| 3102 B | |
| 3123 A | Metal Apron For CMP Pipe |

## SPECIAL DETAILS

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: No additional payment will be made for removing and spreading topsoil Sta. 30+50 to Sta. 37+20 and Sta. 41+50 to Sta. 47+50.

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 tyical sections are approximate.



DAMMS PHOTO PRINT CO. MPLS. MINN.

Begin C.P. M-64
Sta. 0+00

2+35 FE Lt
Inpl 15"X 20' CMP
Remove
FBI 18"X 32' CMP
FBI 2–18" Metal Aprons
For CMP

10+15 ℄ Box Culv skewed 45°
Inpl 4'X 6'X 42' Conc
Remove
Install 72"X 66' RCP 30° Skew
FBI 72"X 12' RCP Class II
FBI 2-72" Conc Aprons
For SCP
Place on Class "C" Bedding

11+98 FE Lt
No culv Inpl
No Culv. Req'd

21+04 ℄ Culv
Inpl 36"X 40' CMP
Remove
FBI 36"X 112' RCP Class IV
FBI 2-36" Conc Aprons
For SCP
Place on Class "C" Bedding

27+51 FE Lt
No culv Inpl
FBI 18"X 32' CMP
FBI 2–18" Metal Aprons
For CMP

Construct 50' SH. Radius

Construct 50' SH. Radius

P.I. 26+24.95
Δ Lt 0°08'

11+39 FE Rt
Inpl 18"X 24' CMP
Remove
FBI 18"X 28' CMP
FBI 2–18" Metal Aprons
For CMP

16+90 FE Rt
No culv Inpl
FBI 18"X 28' CMP
FBI 2–18" Metal Aprons
For CMP

20+80 FE Rt
No culv Inpl
Remove F.Ent.

Construct Ent. Rt
Sta. 20+00
No. Culv. Req'd

26+00 FE Rt
No culv Inpl
FBI 18"X 28' CMP
FBI 2–18" Metal Aprons
For CMP

Cl. 23 Gr. 20 — Cl. 8 Gr. 20 — Cl. 2 Gr. 2 — Cl. 48 Gr. 45

B.M. Elev. 1239.38'
Spk in TP NW of
Intersection

B.M. Elev. 1200.79'
Spk in TP 35' Lt
Sta. 11+72

B.M. Elev. 1239.09'
Spk in TP 29' Lt
Sta. 26+08

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt

Profile 75' Rt

Elev. 40.0

Elev. 38.63999

PVC+15.88235

PVT+95.88

P.I.+55.88235
Elev. 40.0
80' V.C.
M=0.34'

-3.4%

Elev. 13.73913

P.I.+28.26086
Elev. 06.93913
400' V.C.
M=2.3'

PVC+28.26086

PVT+28.26086

Elev. 09.33913

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 6+80 to Sta. 9+10

Inlet Elev. 97.0
Outlet Elev. 96.5

EXC Class A 9974
Class B 3437
SG 604

EMB 95.76

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 12+90 to Sta. 18+50

P.I.+33.33333
Elev. 18.99999
400' V.C.
M= 0.9'

+1.2%

Elev. 16.59999

PVC +33.33333

PVT +33.33333

EXC Class A 1915
Class B 222
SG 140

EMB 1454

Elev. 24.99999

+3.0%

Inlet Elev. 01.5
Outlet Elev. 98.2

Elev. 34.35849

P.I.+45.28301
Elev. 40.35849
400' V.C.
M=1.325'

P.V.C.45.28301

P.V.T.

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 24+40 to Sta. 36+60

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R/T OF WAY CHECKED / NOTE BOOK / NO. / BY / DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M.'s NOTED / STRUCTURE NOTATIONS CHKD. / NOTE BOOK / NO. / BY / DATE

SINGLE PLAN & PROFILE SHEET

OLMSTED COUNTY, MINN. CP M=64 Sheet No. 3 of 32 Sheets

29+54 ℄ Culv
Inpl 18"X34' CMP
Remove
F&I 24"X76' CMP
F&I 2-24" Metal Aprons
For CMP

34+55 FE Lt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

38+77 ℄ Culv
Inpl 36"X34' CMP
Remove
F&I 36"X106' RCP Class IV
F&I 2-36' Conc Aprons
For SCP
Place on Class "B" Bedding

39+77 FE Lt
Inpl 15"X24' CMP
Remove
No. Culv. Req'd

44+39 FE Lt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

52+16 FE Lt
No Culv Inpl
No Culv. Req'd

56+85 FE Lt
No Culv Inpl
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

PI 52+33.17
Δ Lt 0°08'

31+30 FE Rt
Inpl 15"X40' CMP
Remove
F&I 18"X32' CMP
F&I 2-18" Metal Aprons
For CMP

44+48 FE Rt
No Culv Inpl
F&I 18"X28" CMP
F&I 2-18" Metal Aprons
For CMP

52+93 ℄ Culv.
Inpl 30"X32' CMP
Remove
F&I 30"X76' RCP Class II
F&I 2-30" Conc Aprons
For SCP
Place on Class "C" Bedding

56+29 FE Rt
No Culv Inpl
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

B.M. Elev. 1232.78'
Spk in TP 31' Lt
Sta. 40+03

B.M. Elev. 1226.06'
Spk in TP 28' Lt
Sta. 54+83

Profile 75' Lt
Profile 75' Rt

Elev. 41.05849
Inlet Elev. 40.4
Outlet Elev. 30.5
P.V.T.+45.28300

+0.35%

Elev. 45.49545
P.V.C.+12.98701
P.I.+12.98701
Elev. 46.54545
600' V.C.
M= 2.8875'

Inlet Elev. 25.8
Outlet Elev. 21.5

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 41+60 to Sta. 47+75

Elev. 36.04546
Elev. 34.75
P.V.T.+12.98701
P.V.C.+50

-3.5%

P.I.+00
Elev. 29.5
300' V.C.
M=1.3125'

0.0%

P.V.T.+50
Elev. 29.5
Inlet Elev. 21.7
Outlet Elev. 19.0

P.V.C.+99.00
Elev. 29.5

P.I.+74.0
Elev. 29.5
550' V.C.
M=3.4375'

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 55+35 to Sta. 58+65

Elev. 15.6
Elev. 13.2
P.V.T.+49.00
P.V.C.+00

-5.0%

Class A 19718
EXC Class B 542
SG 1257
EMB 14030

Class A 8829
EXC Class B 825
SG 461
EMB 6679

Class A 9606
EXC SG 393
EMB 7077

Class A 9070
EXC SG 469
EMB 6725

Class A 982
EXC SG 196
EMB 687

Class A 1745
EXC SG 183
EMB 1198

Finished ℄ Grades
Present ℄ Grades

SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/W CHECKED
(R.M.-NOTED)
STRUCTURE NOTATNS. CHKD
NOTE BOOK NO.
PROFILE
PLAN
DATE
BY

SINGLE PLAN & PROFILE SHEET
CHARLES BRUNING COMPANY, INC.

65+75 FE Lt
Inpl 15"X 26' CMP
Remove
FBI 18"X 28' CMP
FBI 2-18" Metal Aprons
For CMP

69+65 FE Lt
Inpl 18"X 20' CMP
Remove
FBI 18"X 28' CMP
FBI 2-18" Metal Aprons
For CMP

77+92 ℄ Culv
Inpl 30"X 30' CMP
Remove
Sta. 77+93 ℄ Culv
FBI 42"X52' RCP Class III
FBI 2-42" Conc Aprons
For SCP
Place on Class "C" Bedding

77+95 ℄ Culv
Inpl 30"X30' CMP
Remove
No Culv. Req'd

78+74 Twp Rd Lt
Inpl 30"X 26' SCP
Remove
FBI 48"X36' CMP
FBI 2-48" Metal Aprons
For CMP

86+73 ℄ Culv. Skewed 15°
Inpl C108 X 55'
No Change

88+31 FE Lt
No Culv. Inpl
FBI 18"X28' CMP
FBI 2-18" Metal Aprons
For CMP

65+53 FE Rt
No Culv. Inpl
FBI 18"X28' CMP
FBI 2-18" Metal Aprons
For CMP

78+74 Twp Rd Rt
No Culv. Inpl
No Culv. Req'd

PI 78+74
Δ Lt 0°06'30" Assumed

T107N R23W
T107N R24W
2 1 11 12

PLAN
SURVEYED
PLOTTED
CROSS CHECKED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
B.M.'s NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

B.M. Elev. 1189.55'
Spk in PP 31' Rt
Sta. 65+72

B.M. Elev. 1161.72'
Spk in PP 33' Rt
Sta. 79+07

Finished ℄ Grades
Present ℄ Grades
Elev.

Profile 75' Lt
Profile 75' Rt

PI 1+00
Elev. 98.2
600' V.C.
M=1.875°

PVT 1+00

-2.5%

PVC +4.00

Elev. 77.2

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 62+30 to Sta. 67+20

PI 1+40
Elev. 72.2
400' V.C.
M = 0.5°

Elev. 69.2

PVT +4.00

-1.5%

Inlet Elev. 59.0
Outlet Elev. 58.7

Elev. 56.96667

PVC +55.55556

PI +30.55556
Elev. 32.84166
560' V.C.
M=4.95°

Elev. 68.30667

PVT +65.55560

+5.7%

+75 Class A 757 EXC SG 174 EMB 524

+50 Class A 1728 EXC SG 232 EMB 1197

+11 Class A 22677 EXC SG 1075 EMB 15646

OLMSTED COUNTY, MINN. M-64 Sheet No. 5 of 32 Sheets

SINGLE PLAN & PROFILE-DOTTED
CHARLES HERRING COMPANY, INC.

97+72 FE Lt
Inpl 12"X24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

101+76 FE Lt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

104+70 ℄ Culv
Inpl 18"X 32' CMP
Remove
F&I 24"X 74' RCP Class II
F&I 2-24" Conc Aprons
For SCP
Place on Class "C" Bedding

109+64 FE Lt
No Culv Inpl
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

119+33 FE Lt
No Culv Inpl
No Culv Req'd

120+08 ℄ Culv
Inpl 36"X 46' CMP
Remove
F&I 36"X 64' RCP Class II
F&I 2-36" Conc Aprons
For SCP
Place on Class "C" Bedding

P.O.T. 100+19.71

P.I. 105+12.42
Δ Rt 0°03'

99+80 FE Rt
Inpl 12"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

101+66 FE Rt
No Culv Inpl
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

105+25 FE Rt
Inpl 18"X 24' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

113+69 FE Rt
Inpl 15"X 26' CMP
Remove
F&I 18"X 28' CMP
F&I 2-18" Metal Aprons
For CMP

Shed

Ho.

DATE
BY
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/T OF WAY CHECKED
NOTE BOOK
NO.

B.M. Elev. 1205.81'
Spk in TP 26' Lt
Sta. 94+47

B.M. Elev. 1227.83'
Spk in TP 28' Lt
Sta. 102+60

B.M. Elev. 1216.77'
Spk in PP 33' Rt
Sta. 115+38

Cl. 16 Gr. 14

Cl. 1 Gr. 1

Cl. 1 Gr. 1

Finished ℄ Grades

Present ℄ Grades

Profile 75' Lt

Profile 75' Rt.

Elev. 1260.769

Elev. 1260.769

P.I. +94.87.79
Elev. 1242.00769
1200' VC.
M = 11.7'

P.V.C. +94.87.79

P.V.T. +94.87.79

-1.51%

-2.1%

Elev. 1304

P.V.C. +00

P.I. +00
Elev. 1302.0
800' VC.
M = 4.7'

P.V.T. +00

Elev. 1324.0

Inlet Elev. 1263
Outlet Elev. 1258

Inlet Elev. 1299
Outlet Elev. 1290

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 91+00 to Sta. 102+10

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 108+15 to Sta. 118+55

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 121+30 to Sta. 124+05

EXC Class A 4206
SG 593
EMB 2901

EXC Class A 6097
SG 444
EMB 4201

EXC Class A 11697
SG 1310
EMB 8078

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
(B.M.'s NOTED)
NOTE BOOK
NO.
STRUCTURE NOTATNS CHKD

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.

125+71 ℄ Culv
Inpl 30"X34' CMP
Remove
F&I 30"X82' RCP Class II
F&I 2-30" Conc Aprons
For SCP
Place on Class "C" Bedding

126+29 FE Lt
Inpl 15"X24' CMP
Remove
No Culv. Req'd

129+83 FE Lt
No Culv Inpl
F&I 18"X36' CMP
F&I 2-18" Metal Aprons
For CMP

137+46 ℄ Culv
Inpl 30" X 30' CMP
Remove
F&I 30"X74' RCP Class II
F&I 2-30" Conc Aprons
For SCP
Place on Class "C" Bedding

146+91 ℄ Culv
Inpl 24"X 30' CMP
Remove
F&I 24"X58' RCP Class II
F&I 2-24" Conc Aprons
For SCP
Place on Class "C" Bedding

T107N R14W Sec 1 6 12 7

Found Boulder
P.I. 13+19.85
Δ RT OF 30°

End C.P. M-64
Sta. 156+30.69

Church
Twp Rd
Cemetery
Began Blacktop
Tile Outlet
Ho.
CSAH 24
100'

129+94 Cemetary Ent. Rt
Inpl 15"X24 CMP
Remove
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

134+67 FE Rt
Inpl 15"X24' CMP
Remove
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

147+68 FE Rt
Inpl 15"X24' CMP
Remove
F&I 18"X28' CMP
F&I 2-18" Metal Aprons
For CMP

153+55 FE Rt
Inpl 12"X24' SCP
Remove
F&I 18"X 32' CMP
F&I 2-18" Metal Aprons
For CMP

156+31 CSAH 24 Rt
No Culv Inpl
No Change

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, PAT. OF MAT CHECKED, NOTE BOOK, NO., BY, DATE

Cl. 20 Gr. 31

B.M. Elev. 1225.85'
Spk in TP 67' Lt
Sta. 131+50

B.M. Elev. 1198.29'
Spk in PP 32' Rt
Sta. 146+36

B.M. Elev. 1215.21'
Drag Tooth in PP
48' Lt Sta. 156+80

Finished ℄ Grades
Present ℄ Grades

Profile 75' Lt
Profile 75' Rt

+2.6%
Elev. 20.2
P.V.C. +00
Inlet Elev. 04.0
Outlet Elev. 99.6
Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 129+35 to Sta. 132+80
EXC Class A 2755
SG 449
EMB 2224

P.I. +00
Elev. 280.x
600' V.C.
M=3.2625'
-1.75%
Elev. 22.75
P.V.T. +00
Inlet Elev. 09.5
Outlet Elev. 07.1
Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 139+20 to Sta. 144+55
EXC Class A 11364
SG 499
EMB 7874

P.I. +89.88764
Elev. 98.42697
400' V.C.
M=2.2250'
Elev. 01.92697
P.V.C. +89.88764
Elev. 03.82696
P.V.T. +89.88764
Inlet Elev. 97.0
Outlet Elev. 94.0
EXC Class A 6045
SG 255
EMB 4088

Elev. 12.2
P.V.C. +00
+2.1%
P.I. +00
Elev. 17.6
400' V.C.
M=1.70'
-0.7%
Elev. 16.2
P.V.T. +00
Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 153+50 to Sta. 156+35
EXC Class A 1212
SG 330
EMB 392

PROFILE — SURVEYED, PLOTTED, CROSSES CHECKED, B.M.'s NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

OLMSTED COUNTY, MINN. M-64 Sheet No. 7 of 32 Sheets

SINGLE PLAN & PROFILE - DOTTED
CHARLES BRUNING COMPANY, INC.