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 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.14W. / R.13W. T.107N. — 35 | 36 / 2 | 1

INTERSECTION 35 T.108N. R.13W.

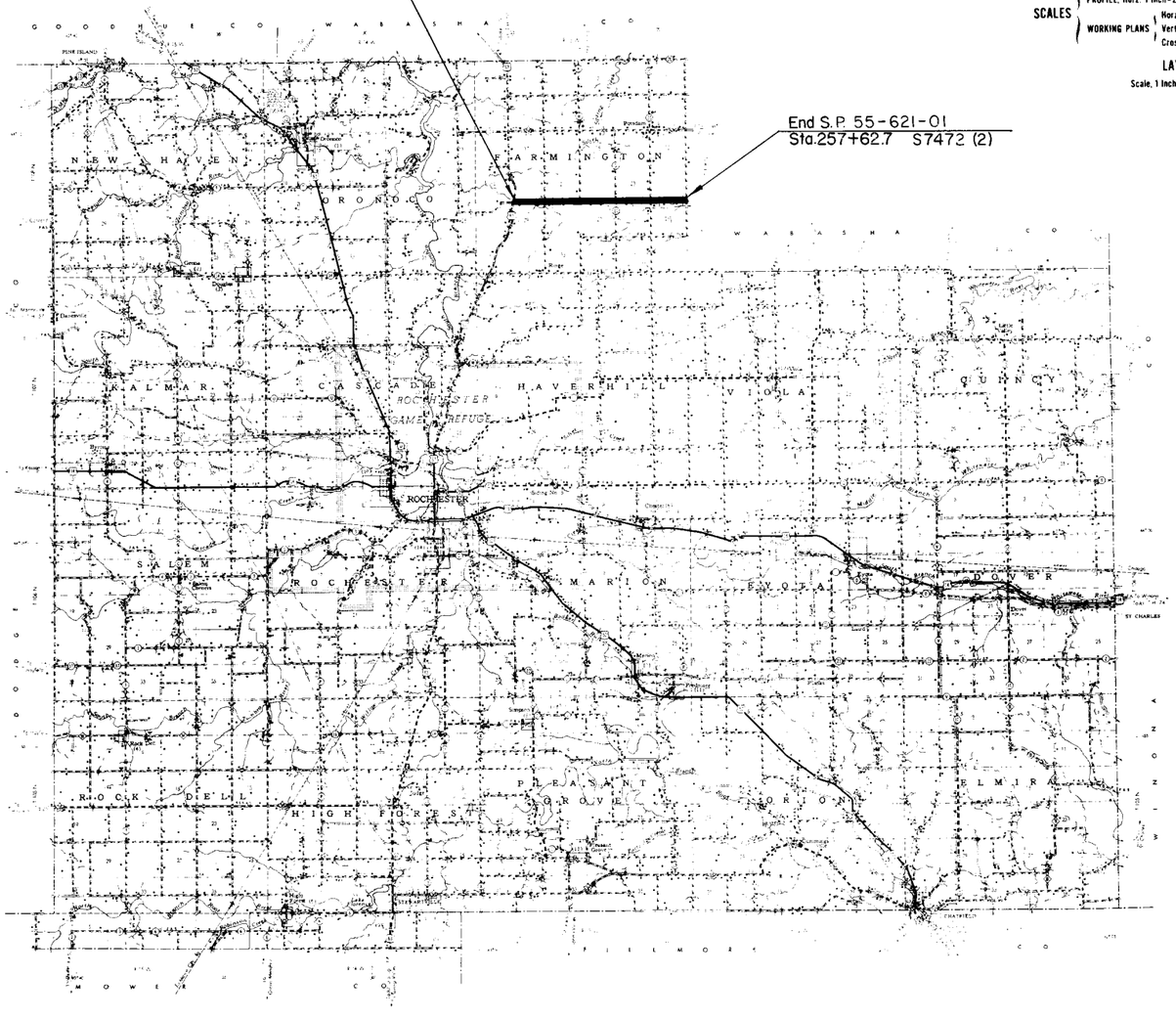
12 / 13

NOTE: SECTION NUMBERS READ FROM THE SOUTH

N

Begin S.P. 55-621-01
Sta.0+00 S 7472(2)

End S.P. 55-621-01
Sta.257+62.7 S7472 (2)



STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING — CRUSHED ROCK BASE — BOX CULVERTS

County State Aid Road No. 21

BETWEEN STATE HIGHWAY No. 63 AND EAST COUNTY LINE

From 817.0' EAST OF N.W. COR. SEC. 29 T.108-R13W. To N.E. COR. SEC. 25 T.108 N-R13W.
Give proper reference to Sections, Township and Range

GROSS LENGTH 25762.7 FEET 4.8792 MILES
BRIDGES LENGTH 0 FEET 0 MILES
EXCEPTIONS LENGTH 0 FEET 0 MILES
NET LENGTH 25762.7 FEET 4.8792 MILES

MINN. PROJ. S 7472(2)

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 11 Plan & Profile
" No. 12 To 40 Cross Sections

Design Speed 50 M.P.H.

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS WILL BE COMPLIED WITH, IN 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 for: H. C. Wells 19__

APPROVED _____ 19__
STATE AID ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DISTRICT ENGINEER — DATE

—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 26, 1959 SHALL COVERN.

Minn. Proj. No. S 7472 (2) State Proj. No. 55-621-01

OLMSTED County, Minnesota County Proj. No. _____ Plan No. _____ Sheet No. 1 of 40 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	567
	2101.507	Grubbing	Tree	531
	2104.501	Remove Portable Culverts	Linear Foot	933
	2105.501	Class A Excavation	Cubic Yard	117480
	2501.511-18"	F & I C.M.P. Culverts - 18"	Linear Foot	1168
	2501.521-24	F & I S.C.P. Culverts - 24" Class IV	Linear Foot	196
	2501.521-24"	F & I S.C.P. Culverts - 24" Class III	Linear Foot	240
	2501.521-30"	F & I S.C.P. Culverts - 30" Class III	Linear Foot	118
	2501.521-36"	F & I S.C.P. Culverts - 36" Class IV	Linear Foot	39
	2501.521-48"	F & I S.C.P. Culverts - 48" Class III	Linear Foot	62
	2501.521-48	F & I S.C.P. Culverts - 48" Class IV	Linear Foot	36
	2515.511-18"	F & I Metal Aprons For C.M.P. - 18"	Apron	78
	2515.521-24"	F & I Conc. Apron For S.C.P. - 24"	Apron	16
	2515.521-30"	F & I Conc. Aprons For S.C.P. - 30"	Apron	4
	2515.521-36"	F & I Conc. Aprons For S.C.P. - 36"	Apron	2
	2515.521-48"	F & I Conc. Aprons For S.C.P. - 48"	Aprons	4
*	2104.520	Remove Concrete Box Culverts	Structure	3
	2411.501	Concrete	Cubic Yard	2416
	2411.525	Class U Excavation	Cubic Yard	235
	2411.541	Reinforcement Bars	Pound	39432
**	2441.502	Single lane, By-Pass (Sta. 30+58.5)	By-Pass	2
	2442.501	Remove Old Bridge (Sta. 30+58.5)	Bridge	1
	2210.527	Crushed Rock Base In Place	Cubic Yard (V.M.)	11616
	2130.501	Water	M-Gal.	415
	2415.512	F & I S.P. A Culv. 10'3" Span, 8 Gage	Linear Foot	16

NOTE: Item 2252.527 Includes 620 Cu. Yds. For Approaches And 300 Cu. Yd's. For Twp. & County Road.

X Sta. 55+70 - 10'x6' Conc. Box Culv.
Sta. 194+31 - 6'x4' Conc. Box Culv.
Sta. 216+01 6'x4' Conc. Box Culv.

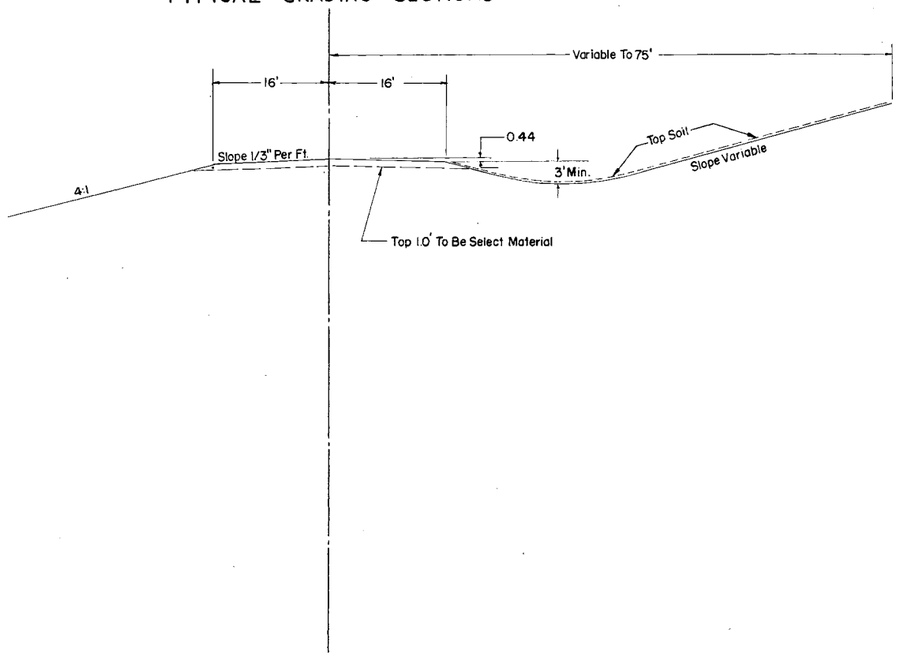
**
Sta. 30+58.5
Sta. 55+70

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 Apron For Reinforced Concrete Pipes
3123 A	Metal Aprons For C.M. Pipes
3050	Structural Plate Structures
8000A, 8001,	
8003 & 8008A	Standard Signs & Barricades

TYPICAL GRADING SECTIONS



SPECIAL DETAILS

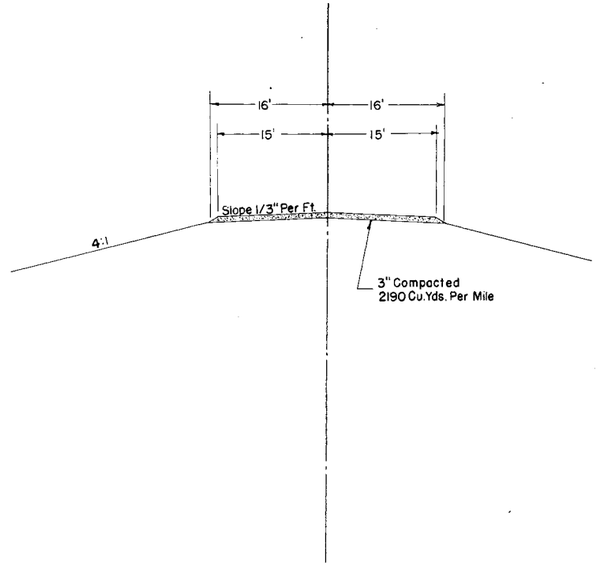
NOTE: Material from the top 1.0' of the natural topsoil shall not be used in the upper 1.0' of the Roadbed Part of this Material shall be uniformly on the slope and ditch bottom to a depth of 3". No payment in addition to the contract price for Class A Excavation will be made for spreading the topsoil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

NOTE: Corrugated Metal and Sectional Concrete Pipe Culvert excavation shall be considered incidental, and will be paid 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.

TYPICAL BASE & SURFACE SECTIONS



S.P. 55-621-01 S 7472 (2)

OLMSTED County, Minn. Proj. No. Plan No. Sheet No. 2 of 40 Sheets

DAHMS PHOTO PRINT CO
MPLS. 1, MINN

PLAN — SURVEYED; PLOTTED; ALIGNMENT CHECKED; BEG. OF WAY CHECKED; NOTE BOOK NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; CROSS SECTIONS CHECKED; B.M. NOTED; STRUCTURE NOTATIONS CHKD; NOTE BOOK NO.; BY; DATE

℄ 00+50
Inst. Multiplate Structure
10'3" Span
5'9" Rise
35' Roadway
8 Gage - Ends Beveled 2:1 Slope
F.A.I. 2-8' Extentions
Remove Beveled Ends - Install Extentions On Each End - Replace Ends.

F.E. 5+58 Lt.
No Culv. Inst.
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

℄ 15+09
Inst. 24"x26' C.M.P.
Remove
F.A.I. 24"x36' S.C.P. Class III
F.A.I. 2-24" S.C.P. Aprons

F.E. 20+73 Lt.
No Culv. Inst.
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

Beg. S.A.P.
STA. 0+00

F.E. 4+23 Rt.
No Culv. Inst.
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P.

F.E. 9+64 Rt.
No Culv. Inst.
F.A.I. 18"x32' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

F.E. 26+37 Rt.
No Culv. Inst.
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

℄ 104+56.5
Inst. 18'4"x34.5' Bridge
Remove
Pl. CIOBT X 42
Class A Conc. 152.0 Cu. Yds.
Reinf. Steel 25984 lbs.
Class U Exc. 105 Cu. Yds.
Single Lane By-Pass

B.M. Elev. 1028.88
Spike in T. Pole
100' Lt. Sta. 0+94

B.M. Elev. 1044.19
Spike in P. Pole
32' Rt. Sta. 20+05

Cl. 58 Gr. 27 — Cl. 106 Gr. 45

Pl. t 18.3333
Elev. 37.7583
V.C. = 80.0
M = +1.7815

Pl. t 8.818
Elev. 42.2645
V.C. = 50.0
M = -0.2750

Pl. t 90.9091
Elev. 40.5227
V.C. = 60.0
M = -0.275

Final Grade

Elev. 37.7583 — Elev. 34.7583 — Elev. 36.0045 — Elev. 41.6295 — Elev. 41.0727 — Elev. 41.727

-3.5% — +2.5% — 2.5% — 0.3%

PI t 18.3333 — PI t 68.1818 — PI t 90.9091

INV. 37.2
CUT 216.9

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 5+00 To 10+50

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 15+00 To 27+30

EXC. 2891
EMB. 1840

EXC. 493
EMB. 316

EXC. 1920
EMB. 1250

EXC. 7096
EMB. 4511
(Borrow 318 Cu. Yds. From Channel Change Sta. 30+58 Lt. B.R.)

BRUNING

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

© BRUNSON, INC., MINNEAPOLIS, MINN., JUNE 1959

S.P. 55-321-01 — S7472 (2)

PLAN — SURVEYED — PLOTTED — GRADES CHECKED — R/W & RT. OF WAY CHECKED — NOTE BOOK — NO. — BY — DATE

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

FE 38+12 Lt.
No Culv. Inst.
F&I 18"x28" C.M.P.
F&I 2-18" C.M.P. Aprons

Twp. Rd. 43+40 Lt.
No Culv. Inst.
No Culv. Readd.

E.C. H12
Inst. 18"x24" C.M.P.
Remove

E. 51+25
Inst. 13"x 8"x22' C.M.P. Deformed
Remove
F&I 36"x 36"x 5' C.P. Class III
F&I 2-36" S.E. Aprons
Pl. Ditch Block

FE 52+43 Lt.
No Culv. Inst.
F&I 18"x28" C.M.P.
F&I 2-18" C.M.P. Aprons

FE. 54+98 Lt.
12"x 20' C.M.P. Inst.
Remove
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

FE. 58+04 Rt.
No Culv. Inst.
F&I 18"x28" C.M.P.
F&I 2-18" C.M.P. Aprons

FE. 354+07 Rt.
No Culv. Inst.
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

Twp. Rd. 46+40 Rt.
No Culv. Inst.
No Culv. Read

E.C. 464+65 Rt.
No Culv. Inst.
No Culv. Readd.

FE. 53+61 Rt.
No Culv. Inst.
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

C 65+70
Inst. 10'x 6'x 22.5 Box Culv.
Remove
Pl. C 106'x 43'
Class A Conc. 64.3 Cu.Yds.
Reinf. Steel 11,136 lbs.
Class U Exc. 100 Cu.Yds.
Single Lane Bypass

FE. 56+73 Rt.
Inst. 13"x 18" C.M.P.
Remove
F&I 18"x 28" C.M.P.
F&I 2-13" C.M.P. Aprons

B.M. Elev. 1044.19
Spike in P. Pole
40' Rt. Sta. 35+32

Pl. + 31.25
ELEV. 47.59375
V.C. 700'
M = 2.8

Profile 75' Lt.
Profile 75' Rt.

+0.3%

INL. 35.9
OUT. 35.6

Subgrade Treatment
Ex. 1.0' Below Profile Grade
Sta. 35+00 To 39+30

EXC. 4833 } 1367 Cu.Yd. Borrow
EMB. 3024 } From Twp. Rd.

B.M. Elev. 1073.34
Spike in P. Pole
52' Lt. Sta. 46+30

Pl. 59.46513
ELEV. 73.0877
V.C. 550'
M = 2.8

+3.0%

INL. 58.7
OUT. 58.0

Subgrade Treatment
Ex. 1.0' Below Profile Grade
Sta. 44+50 To 48+10

EXC. 2010
EMB. 1430

Pl. + 30.0
ELEV. 51.36
V.C. 1250'
M = 8.59375

-3.0%

INL. 52.8
OUT. 52.6

Subgrade Treatment
Ex. 1.0' Below Pr. File Grade
Sta. 52+75 To 58+00

Profile Grade

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

SP 55-621-01 57472(2)

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PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | BY | DATE
NOTE BOOK | BY OF MAT CHECKED
NO.

PROFILE | SURVEYED | PLOTTED | GRADES CHECKED | BY | DATE
NOTE BOOK | STRUCTURE NOTATNS CHKD
NO.

P.I. Sta. 59

P.I. Sta. 93

℄ 90+58
Inpl.18"x 37' C.M.P.
Remove
Fl.24"x 56' S.C.P. Class 70
Fl. 2-24" S.C.P. Aprons

+84

+47

P.I. Sta. 73+95

F.E. 74+96 Rt.
Inpl.12"x22' C.M.P.
Remove
Fl.18"X 32' C.M.P.
Fl.2-18" C.M.P. Aprons

F.E. 85+48 Rt.
No Culv. Inpl.
Fl. 18"x 28' C.M.P.
Fl. 2-18" C.M.P. Aprons

B.M. Elev. 1064.98
Spike in P. Pole
32' Rt. Sta. 60+01

B.M. Elev. 1113.54
Spike in P. Pole
35' Rt. Sta. 75+08

B.M. Elev. 1136.20
Spike in T. P. Pole
35' Rt. Sta. 86+26

Cl. 5 Gr. 6 Cl. 19 Gr. 24

Profile 75' Lt.
Profile 75' Rt.

Final Grade

+33%

P.I. 90
Elev. 37.1
V.C. 1800'
M= 7.425

Subgrade Treatment
Exc. 1.0 Below Profile Grade
Sta. 79+30 To 84+40

Subgrade Treatment
Exc. 1.0 Below Profile Grade
Sta. 70+80 To 75+10

Subgrade Treatment
Exc. 1.0 Below Profile Grade
Sta. 61+30 To 66+70

EXC. 8687
EMB. 5503

EXC. 1502
EMB. 977

EXC. 2829
EMB. 1840

+46

+32

+32

1140
1130
1120
1110
1100
1090
1080
1070
1060

60 65 70 75 80 85 90

BRUNING

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

SP 50-021-01 STATE 121

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PLAN — SURVEYED · PLOTTED · GRADES CHECKED · ALIGNMENT CHECKED · AFT. OF MAT CHECKED · NOTE BOOK · NO. · BY · DATE

PROFILE — SURVEYED · PLOTTED · GRADES CHECKED · STRUCTURE NOTATNS CHKD · NOTE BOOK · NO. · BY · DATE

℄ 96+71
Inst. 18"x 52' C.M.P.
Remove
F&I 24"x 72' S.C.P. Class III
F&I 2-24" S.C.P Aprons

Tie Rd. 98+25 Lt.
No Culv. Inst.
No Culv. Reqd.

℄ 104+04
Inst. 18"x 28' C.M.P.
Remove
F&I 29"x 46" S.C.P. Class III
F&I 2-24" S.C.P. Aprons

F.E. 110+68 Lt
No Culv. Inst.
No Culv. Reqd.

Tie Rd. 99+25 Rt
Exist. 13"x 34' C.M.P.
Remove
F&I 18"x 36' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 110+39 Rt
No Culv. Inst.
No Culv. Reqd.

F.E. 115+38 Rt.
Exist. 12" x 30' C.M.P.
Remove
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

Cl. 0 Gr. 3 — B.M. Elev. 99+56 — Spike in P. Pole — 34' Lt. Sta. 99+56

Cl. 0 Gr. 26

Cl. 107 Gr. 79

Cl. 27 Gr. 27 — B.M. Elev. 142.73 — Spike in P. Pole — 34' Lt. Sta. 115+67

Profile 15' Lt.
Profile (B.M.)

PI. + 81.82
ELEV. 37.1
V.C. = 800'
M = 11

INL. 33.7
OUT. 25.0

INL. 31.5
OUT. 26.0

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 93+80 To 97+80

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 99+40 To 102+90

INL. 41.7
OUT. 39.0

PI. + 115+45
ELEV. 33.2
V.C. 800'
M = 8.3

Subgrade Treatment
Exc. 1.2' Below Profile Grade
Sta. 108+60 To 115+30

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 119+70 To 120+00

EXC. 902
EMB. 583

EXC. 4609
EMB. 307

EXC. 187
EMB. 795

EXC. 4014
EMB. 2533

EXC. 5107
EMB. 3379

BRUNING

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

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PLAN

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

PROFILE

	SURVEYED	BY
NOTE BOOK	PLOTTED	DATE
NO.	GRADES CHECKED	
	MATERIAL	
	STRUCTURE NOTATNS CH'KD	

℄ 122 + 85
Right 24'x92'C.M.P.
Remove
F&I 30"x56'S.C.P.
F&I 2-30"S.C.P.Aprons

F.E. 125+08 Lt.
Right 12"x28'C.M.P.
Remove
F&I 18"x28'C.M.P.
F&I 2-18" C.M.P.Aprons

F.E. 130+82 Lt.
Left 12"x20'C.M.P.
Remove
F&I 18"x29'C.M.P.
F&I 2-18"C.M.P.Aprons

℄ 143+58
Left 18"x25'C.M.P.
Remove
F&I 24"x44'S.C.P. Class IV
F&I 2-24"S.C.P.

F.E. 131+27 Rt.
No Obstruction
F&I 18"x32'C.M.P.
F&I 2-18"C.M.P.Aprons

F.E. 133+60 Rt.
No Obstruction
F&I 18"x29'C.M.P.
F&I 2-18" C.M.P.Aprons

Cl. 12 Gr. 27 — Cl. 15 — Gr. 15 — Cl. 3 Gr. 3

B.M. Elev. 1164.10
Spike in P.Pole
50' Rt. Sta. 132+34

Cl. 1.00
ELEV. 27.8
V.C. 600'
M=6.975

PI 125+08
ELEV. 67.8
V.C. 600'
M=6.

PI 133+08
ELEV. 47.714
V.C. 600'
M=3.3749

Final Grade

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 125+58 To 128+10

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 130+ 00 To 134+70

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 139+50 To 143+

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 147+15 To 151+90

Elev. 45.9
Elev. 51.3
Elev. 50.4
Elev. 57 3/12
Elev. 66 3/12
Elev. 66.2
Elev. 70.6

-5.0%
+3.0%
+5.0%
+3.5%
+4.0%

EXC. 1407
EMB. 893
EXC. 1672
EMB. 1170
EXC. 3540
EMB. 5600
EXC. 1285
EMB. 944

SL. 29.7
CUT. 27.1
NL. 49.3
CUT. 43.3

1180
1170
1160
1150
1140
1130
1120

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

© ALBINSON, INC., MINNEAPOLIS, MINN., JUNE 1958

S.P. 88-021-01 37472 (2)

PLAN — SURVEYED — PLOTTED — QUANTITIES CHECKED — R/W NOTED — STRUCTURE NOTATNS GIVKO — RT. OF WAY CHECKED — NOTE BOOK — NO. — BY — DATE

C.S.A.H. 11 152+08.77 Lt.
No Culv. Inpl.
No Culv. Req'd

℄ 152+42
Inpl. 18"x52' C.M.P. & 2 Aprons
No Change

F.E. 162+36 Lt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 165+04 Lt.
Inpl. 18"x 20' C.M.P.
Remove
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

℄ 168+64
Inpl. 30"x 29' C.M.P.
Remove
F&I 24"x66'S.C.P. Class III
F&I 2-24" S.C.P.

℄ 172+56
Inpl. 18"x36' C.M.P.
Remove
F&I 24"x50'S.C.P. Class III
F&I 2-24"S.C.P. Aprons

F.E. 178+62 Lt.
Inpl. 15"x 20' C.M.P.
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 151+67 Rt.
No Culv. Inpl.
No Culv. Req'd

C.S.A.H. 11 152+08.77 Rt.
No Culv. Inpl.
No Culv. Req'd

℄ 164+06
Inpl. 18"x 34'
Remove
No Culv. Req'd

F.E. 164+35 Rt.
Inpl. 15"x 20' C.M.P.
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. +00 Rt.
No Culv. Inpl.
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

F.E. 175+09
Inpl. 15"x 20' C.M.P.
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

Cemetery

PROFILE — SURVEYED — PLOTTED — QUANTITIES CHECKED — R/W NOTED — STRUCTURE NOTATNS GIVKO — NOTE BOOK — NO. — BY — DATE

B.M. Elev. 1172.92
Spike in P. Pole
31' Lt. Sta. 151+78

B.M. Elev. 1159.20
Spike in P. Pole
35' Lt. Sta. 165+94

Finish Grade

Elev. 73.6652

Pl. 137.9746
Elev. 75.1152
V.C. 600'
M = 2.9625

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Exc. 1' Below Profile Grade
Sta. 152+24 To Sta. 152+90

Subgrade Treatment
Exc. 1' Below Profile Grade
Sta. 157+90 To Sta. 162+80

Subgrade Treatment
Exc. 1' Below Profile Grade
Sta. 173+90 To Sta. 179+36

INL. 58.0
OUT. 53.0

INL. 56.3
OUT. 53.1

Pl. 165.4546
Elev. 54.7091
V.C. 600.0
M = 2.0625

EXC. 1204
EMB. 707

EXC. 470
EMB. 296

EXC. 2573
EMB. 1682

EXC. 5132
EMB. 3522

EXC. 732
EMB. 2715

Gr. 17 Gr. 18 Gr. 23 Gr. 29

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

S.P. 53-621-01 ST172 (3)

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. 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

F.E. 186+71 Lt.
Inst. 15"x 25' C.M.P.
Remove
F.&I. 18"x 32' C.M.P.
F.&I. 2-18" C.M.P. Aprons

F.E. 189+31 Rt.
Inst. 15"x 20' C.M.P.
Remove
F.&I. 18"x 32' C.M.P.
F.&I. 2-18" C.M.P.

℄ 194+31
Inst. 17"x 13" Box Culv.
Remove
F.&I. 46"x 36" S.C.P. Class III
F.&I. 2-48" S.C.P. Aprons

F.E. 200+35 Lt.
No Culv. Req'd

℄ 202+09
Inst. 30"x 36" C.M.P.
Remove
F.&I. 24"x 65' S.C.P. Class III
F.&I. 2-24" S.C.P. Aprons

Twp. Rd. 204+89
Inst. 15"x 30" C.M.P.
Remove
F.&I. 18"x 36' C.M.P.
F.&I. 2-18" C.M.P. Aprons

F.E. 198+00 Rt.
F.&I. 18"x 28' C.M.P.
F.&I. 2-18" C.M.P. Aprons

Sta. 204+38.4
Δ 11° 07' 30"

Twp. Rd. 204+88
No Culv. Inst.
No Culv. Req'd

F.E. 208+00 Rt.
F.&I. 19"x 28' C.M.P.
F.&I. 2-18" C.M.P. Aprons

B.M. Elev. 1157.91
Spike in T. Pole
33' Lt. Sta. 178+53

B.M. Elev. 1127.74
Spike in T. Pole
34' Lt. Sta. 187+74

B.M. Elev. 1115.85
Spike in P. Pole
31' Rt. Sta. 205+23

P.I. 0.0
ELEV. 08.0
V.C. 800'
M=4.45

P.I. 54.7088
ELEV. 22.8847
V.C. 700'
M=3.71875

Subgrade Treatment
Ext. for Base Preparation
Sta. 205+50 to 211+20

EXC. 533.4
EMB. 3632

EXC. 3503
EMB. 2565

EXC. 3304
EMB. 2023

INL. 05.8
OUT 08.4

INL. 10.6
OUT 08.2

Cl. 0 Gr. 9

1150
1140
1130
1120
1110
1100

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

S.P. 55-621-01 37472 (2)

BRUNING

© BINSON, INC., MINNEAPOLIS, MINN., JUNE 1958

PLAN — SURVEYED — PLOTTED — ALIGNMENT CHECKED — PT. OF VIEW CHECKED — NOTE BOOK — NO. — BY — DATE

P.E. 213+55 Lt.
Inpl. 15"x20' C.M.P.
Remove
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

℄ 215+01
Inpl. 8'-4"x 29.5' Culv.
Remove
F.A.I. 48"x62' S.C.P. Class III
F.A.I. 2-48" S.C.P. Aprons

℄ 226+26
Inpl. 21"x38" C.M.P.
Remove
No Culv. Read

℄ 226+29
Inpl. 24"x38" C.M.P.
Remove
F.A.I. 30"x62' S.C.P.
F.A.I. 2-30" S.C.P.

P.E. 229+42
Inpl. 18"x 28' C.M.P.
Remove
F.A.I. 18"x32' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

P.E. 237+23 Lt.
Inpl. 15"x 24' C.M.P.
Remove
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

P.E. 223+34 Rt.
Inpl. 15"x 20' C.M.P.
Remove
F.A.I. 18"x32' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

P.E. 238+55 Rt.
No Culv. Inpl.
F.A.I. 18"x28' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

P.E. 240+40 Rt.
Inpl. 15"x 20' C.M.P.
Remove
F.A.I. 15"x32' C.M.P.
F.A.I. 2-18" C.M.P. Aprons

PROFILE — SURVEYED — PLOTTED — GRADE CHECKED — B.M.& NOTED — NO. — BY — DATE — STRUCTURE NO. FAI 49 (4) K

C(41) Gr. 35

B.M. Elev. 1114.89
Spike in S. Pole
at Sta. 222+63

Pl. 213+55.0
Elev. 1102.512
V.C. 500'
M = 3.6875

Pl. 218+82
Elev. 1082.273
V.C. 700'
M = 3.75

Pl. 255.512
Elev. 1059.2069
V.C. 500'
M = 1.8125

C(120.0 Gr. 28.4

Pl. 88+23.33
Elev. 1137.05
V.C. 600'
M = 2.55

Profile 5' Lt.
Profile 5' Rt.

Elev. 1103.12
Elev. 1091.12

Elev. 1115.72
Elev. 1138.07

Elev. 1123.53
Elev. 1140.07

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 287+10 to 225+10

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 232+50 to 237+00

EXC. 4441
EMB. 2880

EXC. 6256
EMB. 2860

EXC. 2270
EMB. 1508

EXC. 6323
EMB. 4228

PLATE I — PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

K & E Co. No. 348-10