MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR BITUMINOUS BIKE LANE

LOCATED ON C.S.A.H. 4 **BETWEEN** CR 104 **AND** 19TH ST. N.W. IN ROCHESTER **(GEOGRAPHIC DESCRIPTION)**

FROM 1327.12' W. OF W1/4 COR. SEC. 21 T107N R14W **TO** 6710.94' S.E. OF W1/4 SEC. 21 T107N R14W **(LEGAL DESCRIPTION)**

STATE PROJ. NO. .....

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

STATE AID PROJ. NO. 55-604-12

GROSS LENGTH	8038.06	FEET 1.522	MILES
BRIDGES-LENGTH	0.00	FEET 0.00	MILES
EXCEPTIONS-LENGTH	0.00	FEET 0.00	MILES
NET LENGTH	8038.06	FEET 1.522	MILES

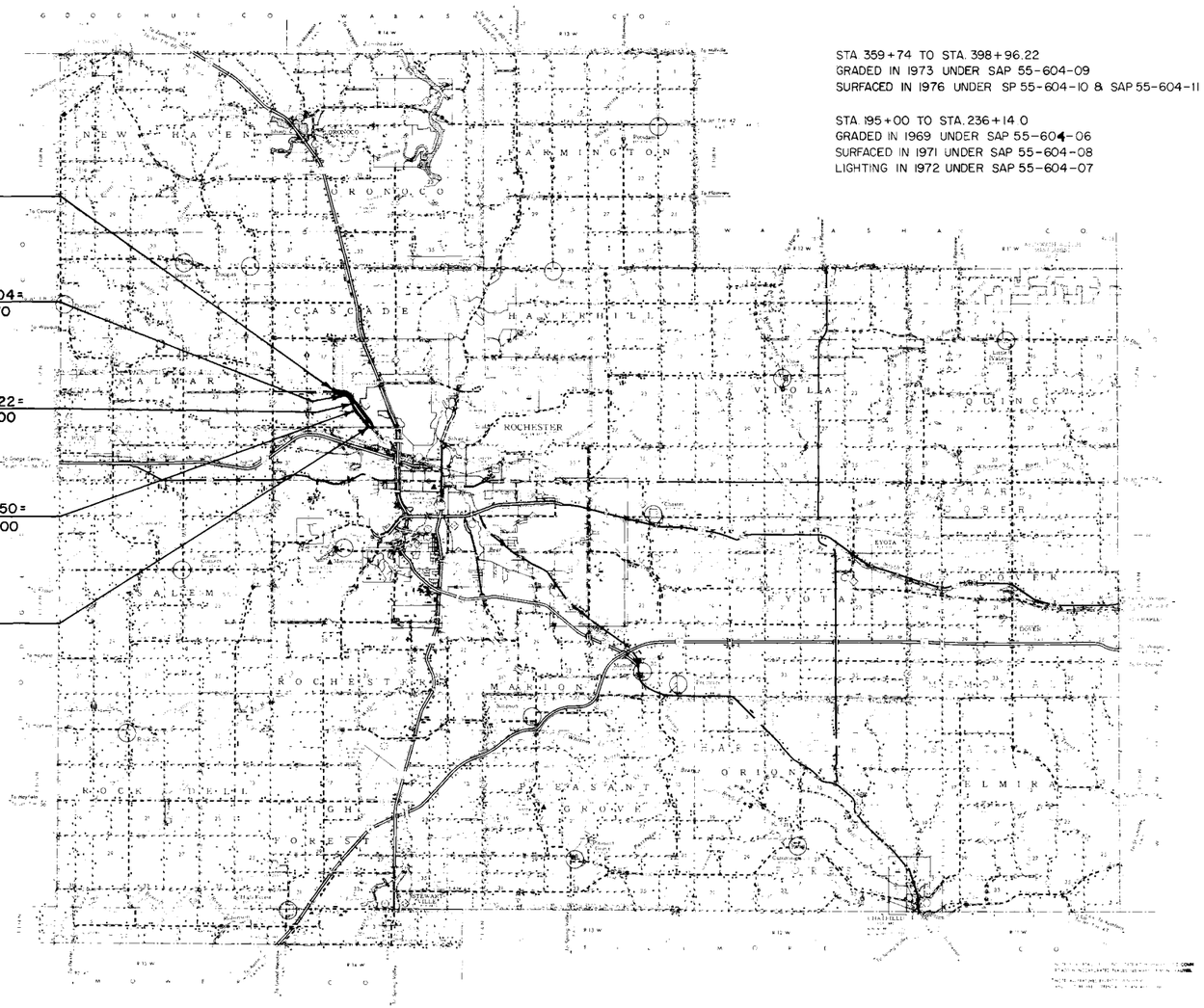
PLANS SYMBOLS

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
CHAIN LINK FENCE
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 (TIMBER)
BRUSH
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
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
SAND PIT
BORROW PIT
ROCK QUARRY
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
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

SIGN PLACEMENT
PAVEMENT MARKING



STA 359+74 TO STA. 398+96.22
GRADED IN 1973 UNDER SAP 55-604-09
SURFACED IN 1976 UNDER SP 55-604-10 & SAP 55-604-11

STA 195+00 TO STA. 236+14.0
GRADED IN 1969 UNDER SAP 55-604-06
SURFACED IN 1971 UNDER SAP 55-604-08
LIGHTING IN 1972 UNDER SAP 55-604-07

SCALES

PLAN 0 50'
PROFILE 0' 50' HOR. 0 10' VER.
INDEX MAP 0' 10,560'
GENERAL LAYOUT

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
" NO. 2 ESTIMATE OF QUANTITIES & TYPICAL SECTIONS.
" NO. 3 TO 8 PLAN & PROFILE SHEETS.

STA. 359+74 TO STA. 398+96.22

DESIGN DESIGNATION

ADT (CURRENT YEAR) 765
ADT (FUTURE YEAR) 1224
SOIL FACTOR 130

DESIGN SPEED 50
BASED ON STOPPING SIGHT DISTANCE
HEIGHT OF EYE 3.75'
HEIGHT OF OBJECT 0.5'

STA. 195+00 TO STA. 236+14.0

DESIGN DESIGNATION

R .....
ADT (Current Year) = 2487
ADT (Future Year) = 3979
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 12/2/80 REG. NO. 10219 ENGR. J.K. Dolan

COUNTY Olmsted
Recommended for Approval ..... 19 .....
ROCHESTER CITY ENGINEER
Recommended for Approval 12-3 19 80
DISTRICT STATE AID ENGINEER
Recommended for Approval Delwert O. Ofstedal 2-11 19 81
STATE AID PLANS AND SPECS ENGINEER
Approved 3/11 19 81 .....
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

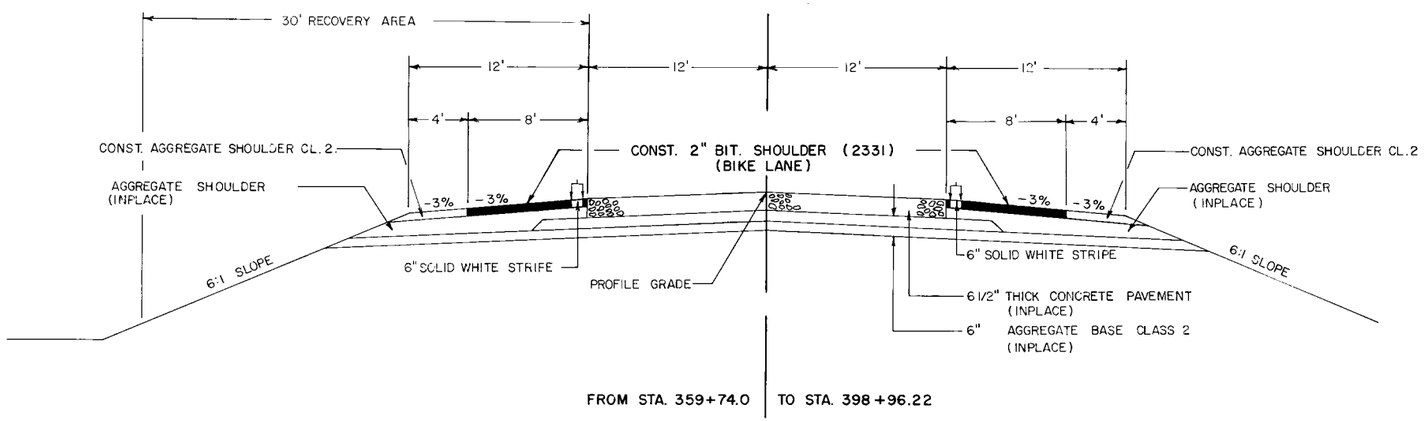
STATE AID PROJ. NO. 55-604-12
STATE PROJ. NO. .....
SHEET NO. 1 **OF** 8 **SHEETS**

STATE AID TITLE SHEET 3-77 ALUMINUM MYLAR BOARD

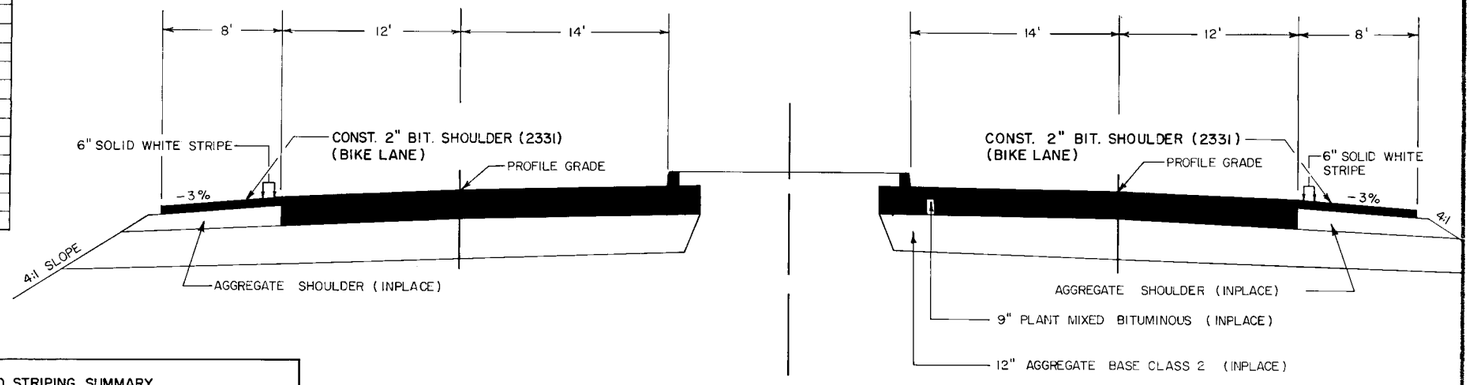
ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	0.4	0.6	1
0112.603	SHOULDER PREPARATION	ROAD STA.	45	85	130
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	30	59	89
2331.516	SHOULDER MIXTURE	TON	436	831	1267
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	102	198	300
2221.502	AGGREGATE SHOULDERING, CLASS 2	CU. YD.		153	153
2564.531	F&I SIGN PANELS, TYPE C	SQ. FT.	16	48	64
0564.602	PAVEMENT MESSAGE, TYPE 1	EACH	4	5	9
0564.602	PAVEMENT MESSAGE, TYPE 2	EACH	4	5	9
0564.603	6" WIDE REFLECTIVE WHITE LINE SOLID	LIN. FT.	4610	8749	13,359

TYPICAL SECTIONS



FROM STA. 359+74.0 | TO STA. 398+96.22



FROM STA. 195+00 | TO STA. 236+14

STANDARD PLATES

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

PLATE NO	DESCRIPTION
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES.
8000 G	STANDARD BARRICADES

SIGNING, MARKING AND STRIPING SUMMARY

INDEX		ITEM	SIZE	QUANTITY
	TYPE	SIGNING		
3	C	R4-4 (BEGIN RIGHT TURN LANE YIELD TO BIKES)	36"x 30" (7.5 SQ. FT.)	4 EA.
16	C	D11-1 (BIKE ROUTE)	24"x 18" (3 SQ. FT.)	4 EA.
17	C	M4-12 (END)	24"x 6" (1 SQ. FT.)	2 EA.
18	C	M4-11 (BEGIN)	24"x 6" (1 SQ. FT.)	2 EA.
19	C	W10-XIR (TRACK ANGLE)	36"x 36" (9 SQ. FT.)	2 EA.
		PAVEMENT MARKINGS		
A	1	BIKE SYMBOL		9 EA.
B	2	ARROW		9 EA.
		STRIPING – BIKE LANE	6" WIDE	13,359 LIN. FT

S. A. P. 55-604-12

State Proj. No.

C.S.A.H. 4 OLMSTED COUNTY **Sheet No.** 2 **of** 8 **Sheets**

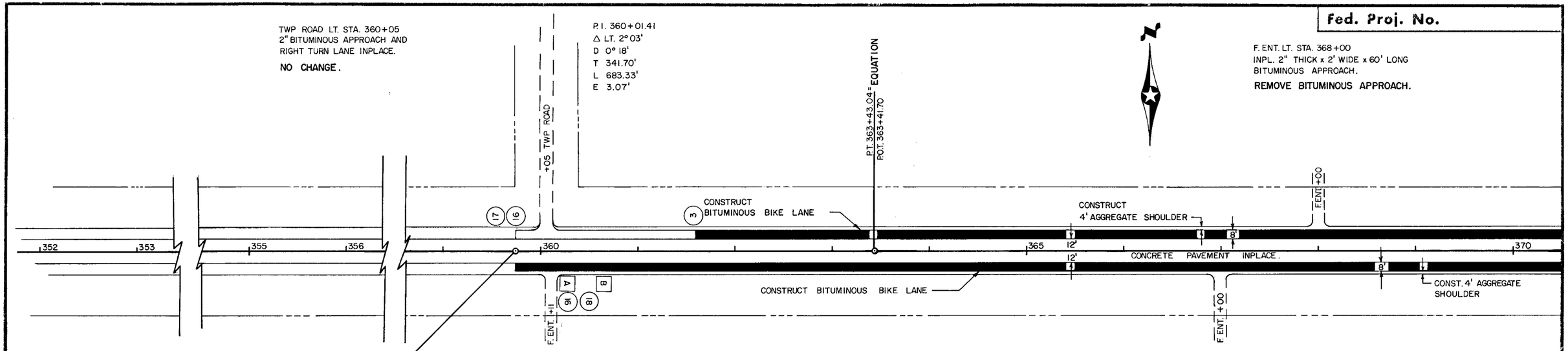
Fed. Proj. No.

TWP ROAD LT. STA. 360+05
2" BITUMINOUS APPROACH AND
RIGHT TURN LANE INPLACE.
NO CHANGE.

P.I. 360+01.41
Δ LT. 2°03'
D 0° 18'
T 341.70'
L 683.33'
E 3.07'

P.T. 363+43.04 = EQUATION
P.O.T. 363+41.70

F. ENT. LT. STA. 368+00
INPL. 2" THICK x 2' WIDE x 60' LONG
BITUMINOUS APPROACH.
REMOVE BITUMINOUS APPROACH.

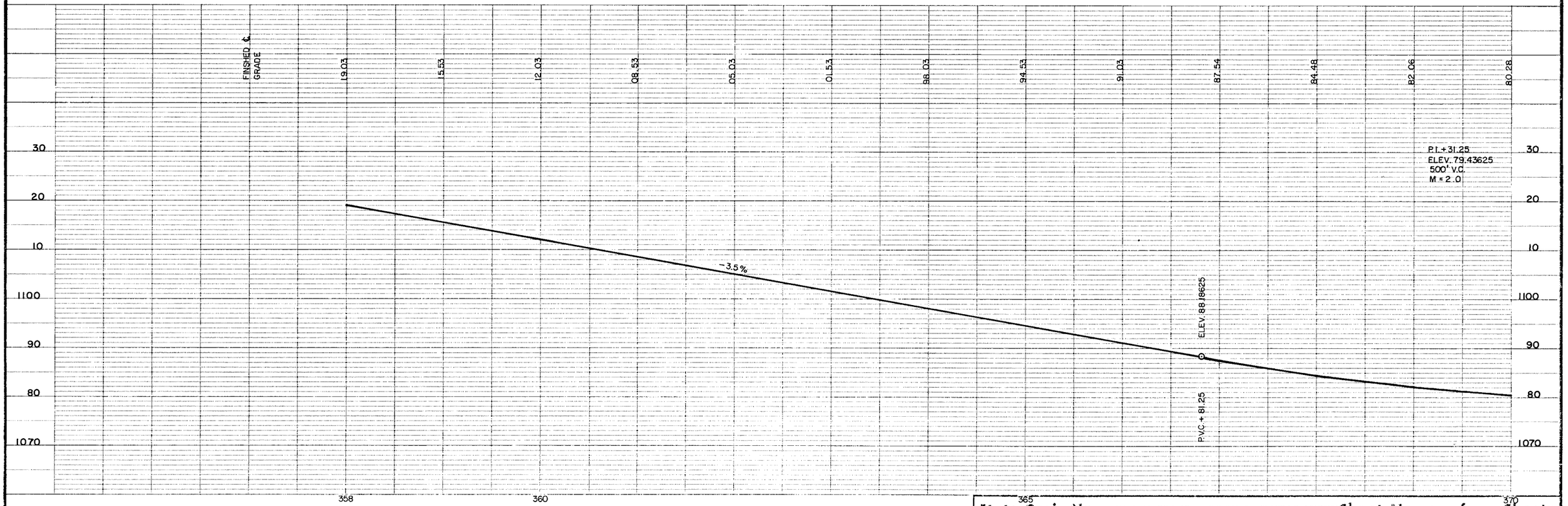


BEGIN: SAP 55-604-12
STA. 359+74.0

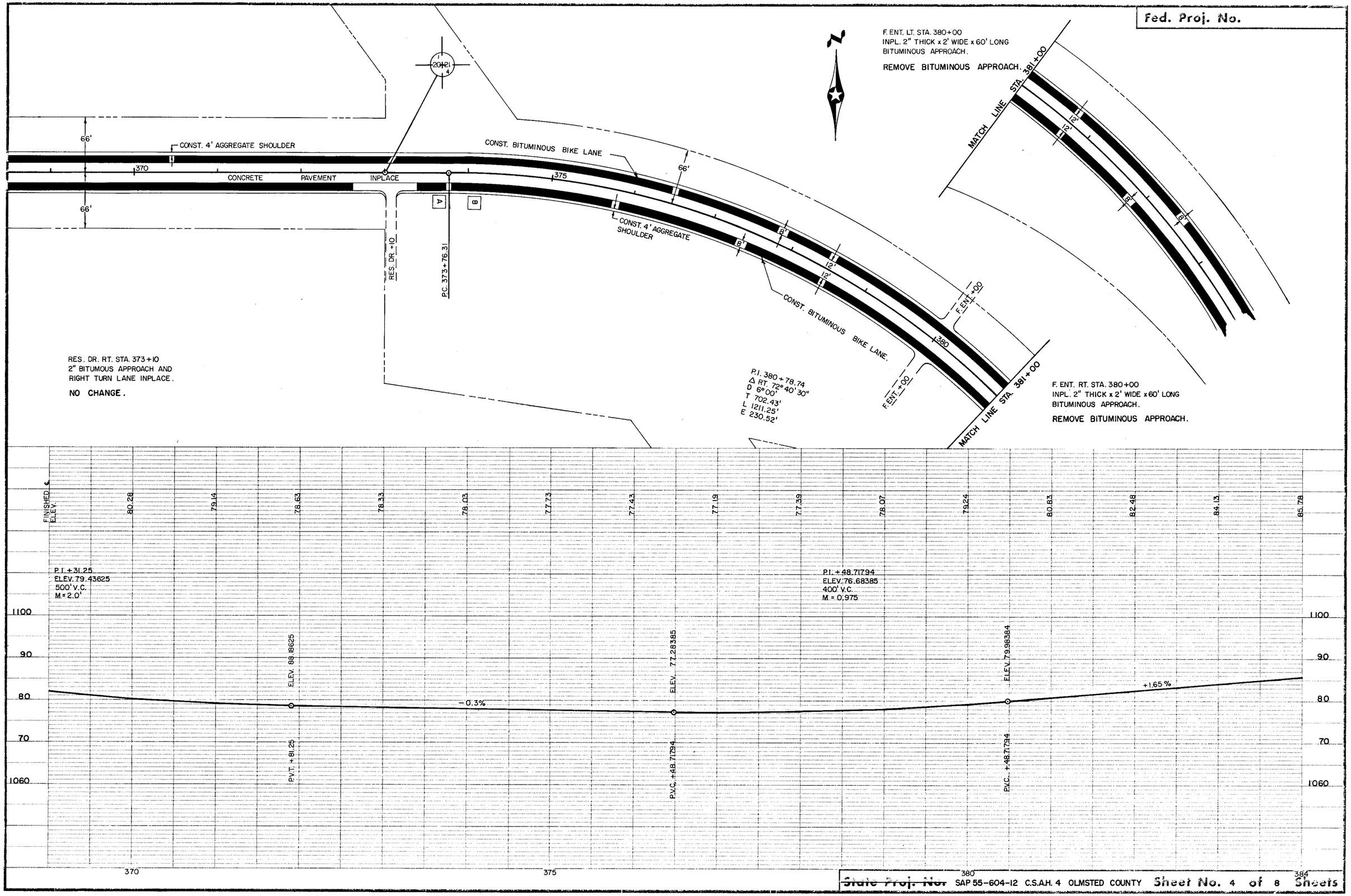
FROM STA. 359+74.0 TO STA. 398+96.22
GRADED IN 1973 UNDER SAP 55-604-09
SURFACED IN 1976 UNDER S.P. 55-604-10 & SAP 55-604-11

F. ENT. RT. STA. 360+11
INPL. 2" THICK x 2' WIDE x 60' LONG
BITUMINOUS APPROACH.
REMOVE BITUMINOUS APPROACH.

F. ENT. RT. STA. 367+00
INPL. 2" THICK x 2' WIDE x 60' LONG
BITUMINOUS APPROACH.
REMOVE BITUMINOUS APPROACH.



Fed. Proj. No.



SINGLE PLAN & PROFILE-DOTTED
SHEET No. THROUGH No. OF 8

State Proj. No. SAP 55-604-12 C.S.A.H. 4 OLMSTED COUNTY Sheet No. 4 of 8 Sheets

Fed. Proj. No.

CONST. 4' AGGREGATE SHOULDER

CONST. 4' AGGREGATE SHOULDER

385

8'

2" BITUMINOUS BITUMINOUS

PT. 385+87.56

RES. DR. +98

RES. DR. +85

RES. DR. +80

RES. DR. +94

RES. DR. +82

P.C. 390+13.88

SHOULDER 12'

CURB

CONCRETE PAVEMENT INPLACE

INPLACE

INPLACE

2" BITUMINOUS BITUMINOUS SHOULDER

CURB INPLACE

CONST. 4' AGG. SHOULDER

390

CONST. BITUMINOUS BIKE LANE

12' INPLACE

CONST. 4' AGG. SHOULDER

RES. DR. LT. STA. 387+94
2" BITUMINOUS APPROACH INPLACE.
NO CHANGE.

RES. DR. LT. STA. 389+82
2" BITUMINOUS APPROACH INPLACE.
NO CHANGE.

P.I. 392+66.21
Δ LT. 18° 41' 30"
D 3° 45'
T 252.83'
L 501.11'

I.B.M. ENT. LT. STA. 395+30
2" BITUMINOUS APPROACH
AND RIGHT TURN LANE INPL.
NO CHANGE.

ROCHESTER

I.B.M. ENT. +30

CONST. BIT. BIKE LANE

P.T. 395+14.49

CORPERATE LIMITS

STA. 398+96.22 = EQUATION STA. 195 + 00

CONST. BITUMINOUS BIKE LANE

75'

10'

12'

12'

10'

8'

8'

50'

395

2" BITUMINOUS SHOULDER INPLACE

CONST. 4' AGGREGATE SHOULDERS

RES. DR. RT. STA. 386+98
2" BITUMINOUS APPROACH INPLACE
NO CHANGE.

RES. DR. RT. STA. 387+85
2" BITUMINOUS APPROACH INPLACE
NO CHANGE.

RES. DR. RT. STA. 388+80
2" BITUMINOUS APPROACH INPLACE
NO CHANGE.

TWP. ROAD +85

CONST. 4' AGGREGATE SH.

STA. 398+96.22
END CONCRETE PAVMENT
BEGIN BITUMINUS SURFACE

CHICAGO AND GREAT WESTERN RAILROAD

TWP. ROAD RT. STA. 392+85
2" BITUMINOUS APPROACH INPLACE.
NO CHANGE.

FINISHED ℄ ELEV.

85.78 87.43 89.08 90.35 90.86 90.62 89.61 87.85 85.33 82.43 79.72 77.54 75.94 74.80 74.0 73.2

ELEV. 89.08

P.V.C. + 00

+1.65 %

P.I. + 00
ELEV. 94.03
600' V.C.
M = 3.4125

ELEV. 85.33

P.V.T. + 00

P.V.C. + 10.95238

ELEV. 82.01572

-2.9 %

P.I. + 10.95238
ELEV. 76.31239
400' V.C.
M = 1.05

ELEV. 74.71239

P.V.T. + 10.95238

-0.8 %

1090 80 70 1060

385 390 395 398

State Proj. No. SAP 55-604-12 C.S.A.H. OLMSTED COUNTY Sheet No. 5 of 8 Sheets

North Bound Lane
P.I. 195+00
Δ Lt. 2°31'

North Bound Lane
P.I. 200+00
Δ Rt. 2°31'

DR. LT. STA. 201+17
2" BITUMINOUS APPROACH INPL.
NO CHANGE

EQUATION: Sta. 200+00.5 = Sta. 200+00

ROCHESTER / CORPERATE

CONST. BITUMINOUS BIKE LANE

BITUMINOUS SURFACE INPLACE

LIMITS

Tele. Cable Marker

CONST. BITUMINOUS BIKE LANE

Chicago and Great Western Railroad

EQUATION: Sta. 200+00.5 = Sta. 200+00

South Bound Lane
P.I. 195+00
Δ Rt. 2°31'

FROM STA. 195+00 TO STA. 236+14.0
GRADED IN 1969 UNDER SAP 55-604-06
SURFACED IN 1971 UNDER SAP 55-604-08

South Bound Lane
P.I. 200+00
Δ Lt. 2°31'

FE Rt. 201+20
2" BITUMINOUS APPROACH INPLACE.
NO CHANGE

P.O.T. 205+54.85

CR 151

67'R

150' Taper

P.I. 400
Elev. 64.6
600' V.C.
M = 1.050

-1.0%

+1.0%

P.V.C. 398+00 Elev. 67.6

P.V.T. 404+00 Elev. 66.8

P.V.C. 408+00 Elev. 66.5

Profile 75' Lt.

Profile 75' Rt.

G. Finished Elev.

195 200 205 210

PLATE 1—PLAN—PROFILE

S.A.P. 55-604-12 OLMSTED COUNTY C.S.A.H. NO. 4 SHEET 6 of 8 SHEETS

CR. 151 LT. STA. 211+50
BITUMINOUS APPROACH AND
TAPER INPLACE.
NO CHANGE.

CR 151

P.O.T. 211+58.77 CSAH 4= CR 151

P.I. 211+00

12' to 16'

Tele Cable Marker

CONST. BITUMINOUS BIKE LANE

BITUMINOUS SURFACE INPLACE

210

150' Taper

+00

+50

+75

+25

300'

215

150' Taper

BITUMINOUS SURFACE INPLACE

Tele Cable Marker

230'

CONST. BITUMINOUS BIKE LANE

Chicago and Great Western Railroad

Tele. Cable Marker

180'

220

225

24' 24'

+23.78

32 AVE. N.W. RT. STA. 213+24
BITUMINOUS APPROACH AND
TURN LANE INPLACE.
NO CHANGE.

B.M. Elev. 1065.16'
Spk. in TP 44' Rt.
Sta. 211+71

P.I. 1+80.0
Elev. 67.32
400' V.C.
M=0.75

Profile 75' Lt

Profile 75 Rt

P.V.T. 1+80.6 Elev. 65.1

-1.1%

P.V.C. +07.4074 Elev. 56.0851

P.I. +07.4074
Elev. 53.81853
400' V.C.
M=0.135

-0.83%

P.V.T. +07.4074 Elev. 52.15852

G. Finished Elev.

66.7 66.5 65.9 64.9 63.8 62.7 61.6 60.5 59.4 58.3 57.2 56.1 55.03 53.96 53.08 52.22

1070 60 50 1040

+68 +29 +53 +39 +70 +38

1067.3 67.4 67.6 67.6 67.5 67.2 66.0 64.8 1063.5 62.9 62.0 60.7 59.5 58.2 1057.2 56.2 55.2 54.2 53.6 53.4 53.1 1052.5

210 215 220 225

BRUNING NO 42 151

PLATE 1—PLAN—PROFILE o f r o a d s
MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY

FUTURE STREET LT. STA. 225+20
BITUMINOUS APPROACH TO BE
CONSTRUCTED BY OTHERS

END BITUMINOUS BIKE LANE LEFT
STA. 231+32

CONST. BITUMINOUS BIKE LANE

BITUMINOUS SURFACE INPLACE

CONST. BITUMINOUS BIKE LANE

Begin Taper +32

200' Taper

100' Taper

100' Taper

ROCHESTER

CORPERATE

Chicago and Great Western Railroad

Property Line

Location Line
P.I. 236+46.7
Δ Lt. 15°00'
D 2°24'
T 314.32'
L 625.00'

N.B.L.
P.I. 236+20.63
Δ Lt. 15°00'
D 2.61704°
T 288.23'
L 573.17'

P.C. 233+32.28 Location Line, N.B.L. & 19th St. Leg

P.C. 233+32.40 S.B.L.

Farm Ent. Rt. 232+20
BITUMINOUS APPROACH INPL.
NO CHANGE

S.B.L.
P.I. 236+18.67
Δ Lt. 15°00'
D 2.6350°
T. 286.27'
L 569.26'

END BITUMINOUS BIKE LANE RIGHT
STA. 236+14

END: SAP 55-604-12
STA. 236+14

℄ 19th St Leg

LIMITS

19TH STREET N.W.

P.T. 238+57.23

Equation P.T. 238+57.23 = P.O.T. 238+12.80 N.B.L.
Equation P.T. 238+01.66 = P.O.T. 239+00.32 S.B.L.

Pipe 18 R

Pipe

B.M. Elev. 1045.06
Spk. in PP 52' Rt.
Sta. 232+80

B.M. Elev. 1038.95'
Spk. in PP 17' Rt.
Sta. 239+13

Q Finished Elev.

P.V.T. +07+37.49 Elev. 52.5852

-0.83%

Profile 75' Lt

Profile 75' Rt

225 230 235 240

BRUNING NO. 42-161

PLATE 1 - PLAN - PROFILE

MADE AND PRINTED IN U.S.A. CHARLES BRUNING COMPANY

OLMSTED COUNTY

S.A.P. 55-604-12

C.S.A.H. NO. 4 SHEET 8 of 8 SHEETS