MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR GRADING AND AGGREGATE BASE

LOCATED ON C.S.A.H. 22 **BETWEEN** TH 63 and C.S.A.H. 2 ½ MILE N.E. of ROCHESTER **(GEOGRAPHIC DESCRIPTION)**

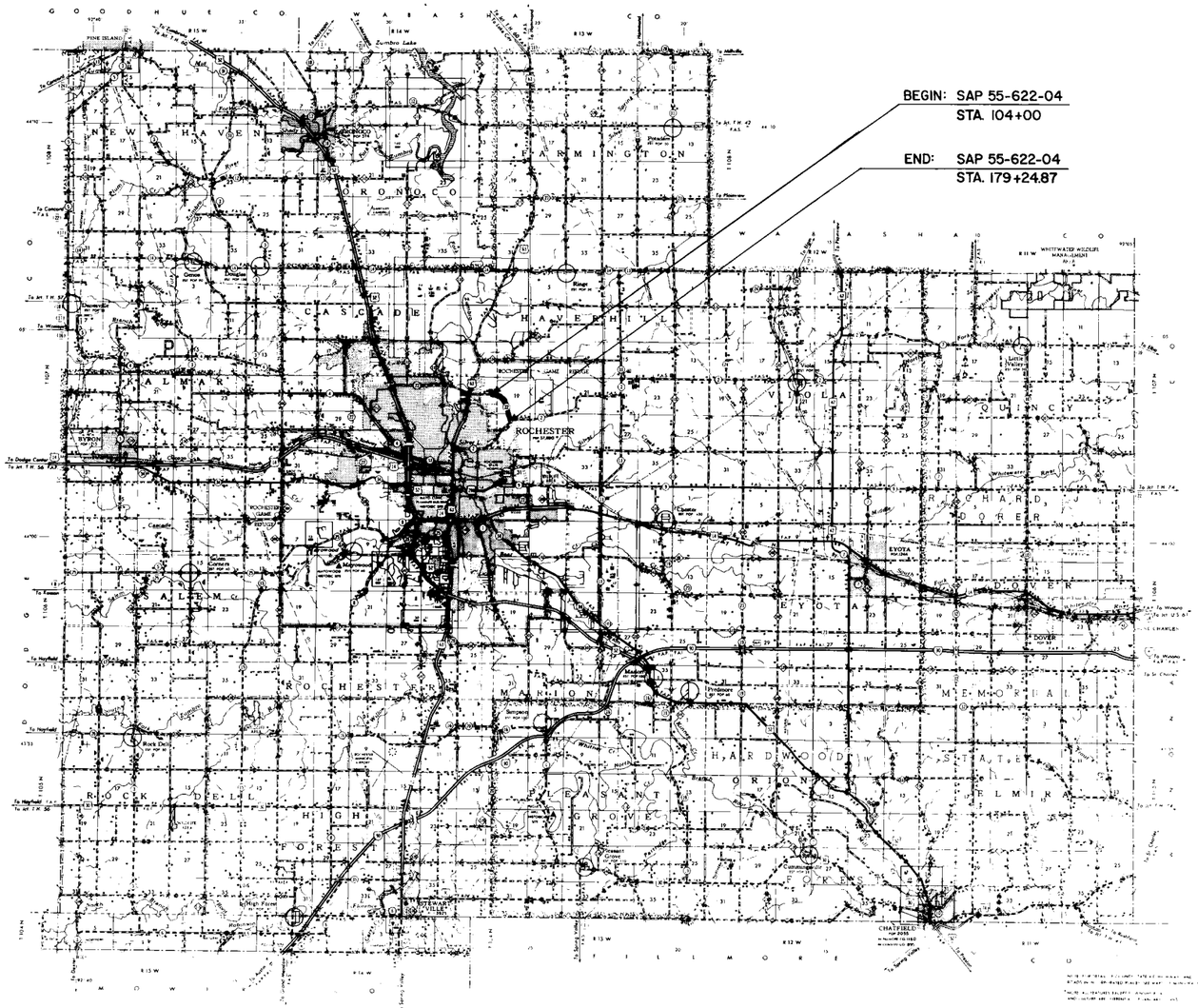
FROM Approx. 454' N.W. of Center Sec. 24 T107N- R14W **TO** Approx. 964' S. of N. Line Sec. 30 T107N- R13W **(LEGAL DESCRIPTION)**

STATE PROJ. NO. .....

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

~~**STATE PROJ. NO.**~~ SAP 55-622-04

GROSS LENGTH	7524.87	FEET 1.425	MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	7524.87	FEET 1.425	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 (P.I., P.O.T., P.O.R.)
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 (W)
CHAIN LINK FENCE (C-L)
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
BRUSH (TIMBER)
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame) (I-S-F 75')
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 (G)
SAND PIT (S)
BORROW PIT (B)
ROCK QUARRY (Q)
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 (G)
WATER MAIN (I)
CONDUIT
TELEPHONE CABLE IN CONDUIT (T)
ELECTRIC CABLE IN CONDUIT (P)
TELEPHONE MANHOLE (T)
ELECTRIC MANHOLE (P)
BURIED TELEPHONE CABLE T-BUR
BURIED ELECTRIC CABLE P-BUR
AERIAL TELEPHONE CABLE T-AE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

SCALES

PLAN 0 50'
PROFILE 0 50'
INDEX MAP 0 10560'
CROSS SECTIONS
~~GENERAL LAYOUT~~ 0 10'

ALBINSON MAPS 86A05

MINN. PROJ. NO. .....

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" SHALL GOVERN

INDEX

SHEET NO. 1	TITLE SHEET
NO. 2	ESTIMATE OF QUANTITIES
NO. 3	TYPICAL SECTIONS
NO. 4-10	PLAN AND PROFILE SHEETS.
NO. 11-30	CROSS SECTIONS.
NO. 31-32	TEMPORARY CROSSING DETAIL & CROSS SECTIONS

*TRAFFIC PROJECTION YEAR 2000 ADT 13829 (FROM PROJECT EIS)

*TRAFFIC PROJECTION YEAR 2005 ADT 7200 (FROM D.O.T. LAYOUT DATED 2-84)

APPROVED Jan. 30 1986, Roger E. Plumb
DIRECTOR OF PUBLIC SERVICES, CITY OF ROCHESTER

~~**DESIGN DESIGNATION**~~

R .....
ADT (Current Year) = *
ADT (Future Year) = *
DHV (Design Hr. Vol.) = ...
D (Directional Distr.) = ...%
T (Heavy Commercial) = Est. 10%
SOIL FACTOR 130

ΣN18 (20) .....
Design Speed 55 MPH
Based on Stopping Sight Distance
Height of eye 3.5' 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 1-31-86 REG. NO. 10219 ENGR. J. K. Solar
COUNTY Olmsted

Recommended for Approval Lawrence Klemm 1-27 19..
DISTRICT STATE AID ENGINEER

Recommended for Approval Julius Skallman 3/6 1986
STATE AID PLANS AND SPECS ENGINEER

Approved 3.6 1986 for Ray T. Mason
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
....
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-622-04
STATE PROJ. NO. ..... **SHEET NO.** 1 **OF** 32 **SHEETS**

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM PARTICIPATING ITEMS	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM			1
	2101.501	CLEARING	ACRE	7.0	8.4	15.4
	2101.502	CLEARING	TREE	15	9	24
	2101.506	GRUBBING	ACRE	7.0	8.4	15.4
	2101.507	GRUBBING	TREE	15	9	24
	2104.501	REMOVE PIPE CULVERTS	LIN. FT.		130	130
(1)	2104.501	REMOVE FENCE	LIN. FT.	960	1460	2420
	2104.521	SALVAGE PIPE CULVERT	LIN. FT.	134	40	174
	2105.501	COMMON EXCAVATION (P)	CU. YD.	13236	44097	57333
	2105.503	ROCK EXCAVATION	CU. YD.	4933	95222	100155
	2105.505	MUCK EXCAVATION (P)	CU. YD.	4024	5247	9271
	2105.507	SUBGRADE EXCAVATION (P)	CU. YD.	1784	2336	4120
	2105.511	COMMON CHANNEL EXCAVATION (P)	CU. YD.	2919		2919
	2105.535	SALVAGED TOPSOIL (E.V.) (P)	CU. YD.	2660	3515	6175
(2)	2130.501	WATER	M-GAL.	34	40	74
(3)	2211.501	AGGREGATE BASE CLASS 2	TON	7294	8062	15356
	2501.511	18" C.S. PIPE CULVERT	LIN. FT.		268	268
	2501.511	24" R.C. PIPE CULVERT CLASS 2	LIN. FT.	60	30	90
	2501.511	24" R.C. PIPE CULVERT CLASS 3	LIN. FT.		96	96
	2501.511	24" R.C. PIPE CULVERT CLASS 4	LIN. FT.		40	40
	2501.511	30" R.C. PIPE CULVERT CLASS 3	LIN. FT.		88	88
	2501.511	30" R.C. PIPE CULVERT CLASS 4	LIN. FT.		112	112
	2501.511	30" R.C. PIPE CULVERT CLASS 5	LIN. FT.		104	104
	2501.511	42" R.C. PIPE CULVERT CLASS 2	LIN. FT.	164		164
	2501.511	42" R.C. PIPE CULVERT CLASS 3	LIN. FT.	28	36	64
	2501.511	42" R.C. PIPE CULVERT CLASS 4	LIN. FT.	138	12	150
	2501.511	54" R.C. PIPE CULVERT CLASS 5	LIN. FT.	86		86
	2501.515	18" G.S. PIPE APRONS	EACH		10	10
	2501.515	24" R.C. PIPE APRONS	EACH	1	2	3
	2501.515	30" R.C. PIPE APRONS	EACH		2	2
	2501.515	42" R.C. PIPE APRONS	EACH	3	1	4
	2501.515	54" R.C. PIPE APRONS	EACH	2		2
	2501.521	28" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.	60	112	172
	2501.521	42" SPAN C.S. PIPE-ARCH CULVERT	LIN. FT.		42	42
	2501.521	22" SPAN R.C. PIPE-ARCH CULVERT CLASS 2A	LIN. FT.		116	116
	2501.521	28" SPAN R.C. PIPE-ARCH CULVERT CLASS 2A	LIN. FT.	78	150	228
	2501.521	73" SPAN R.C. PIPE-ARCH CULVERT CLASS 2A	LIN. FT.	158		158
	2501.525	28" SPAN G.S. PIPE-ARCH APRONS	EACH	2	4	6
	2501.525	42" SPAN G.S. PIPE-ARCH APRONS	EACH		2	2
	2501.525	22" SPAN R.C. PIPE-ARCH APRONS	EACH		4	4
	2501.525	28" SPAN R.C. PIPE-ARCH APRONS	EACH	2	6	8
	2501.525	73" SPAN R.C. PIPE-ARCH APRONS	EACH	4		4
(4)	2506.509	CONSTRUCT CATCH BASIN DESIGN "C"	EACH	1		1
	2506.509	CONSTRUCT CATCH BASIN DESIGN "I"	EACH	1		1
	2506.522	ADJUST FRAM AND RING CASTINGS	EACH	2		2
(5)	2511.501	RANDOM RIP RAP CLASS III	CU. YD.	170	21	191
	2511.501	GRANULAR FILTER	CU. YD.	32	5	37
(6)	2575.501	ROADSIDE SEEDING (P)	ACRE	5.8	21.2	27
	2575.502	SEED MIXTURE 2	POUND	450	1850	2300
	2575.502	SEED MIXTURE 5	POUND	225	925	1150
	2575.502	SEED CROWN VETCH	POUND	26	54	80
	2575.505	SODDING	SQ. YD.	9545	12033	21,578
(7)	2575.511	MULCH MATERIAL TYPE 1	TON	11.6	42.4	54
(8)	2575.519	DISC ANCHORING (P)	ACRE	4.5	18.5	23
(9)	2575.531	COMMERCIAL FERTILIZER ANALYSIS 12-12-12	TON	0.5	1.5	2
(10)	2573.501	BALE CHECK	EACH	32	56	88
	0504.602	ADJUST GATE VALVE	EACH	1		1
		NON-PARTICIPATING ITEMS CITY OF ROCHESTER PROJECT NO. 6233-1-85				
		SANITARY SEWER				
(11)	S100.501	TRENCH EXC. FOR PIPE 24" AND UNDER. 6 FT. TO 10 FT. DEEP	LIN. FT.	75		75
(11)	S100.501	TRENCH EXC. FOR PIPE 24" AND UNDER. 10 FT. TO 13 FT. DEEP	LIN. FT.	65		65
	S100.519	FURNISH & INSTALL 8" ALTERNATE PIPE SEWER	LIN. FT.	140		140
	S100.570	CONNECT INTO EXISTING MANHOLE	EACH	1		1
		WATERMAIN				
(11)	W 200.501	TRENCH EXC. FOR PIPE 14" AND UNDER. 0 FT. TO 8 FT. DEEP	LIN. FT.	160		160
(11)	W 200.501	TRENCH EXC. FOR PIPE 14" AND UNDER. 8 FT. TO 10 FT. DEEP	LIN. FT.	164		164
(12)	W 200.512	SOLID ROCK EXCAVATION	CU. YD.	20		20
	W200.514	FURNISH & INSTALL 6" D.I.P WATERMAIN CLASS 50	LIN. FT.	15		15
	W200.514	FUNISH & INSTALL 8" D.I.P WATERMAIN CLASS 50	LIN. FT.	294		294
	W200.528	FURNISH & INSTALL WATERMAIN FITTINGS	POUND	471		471
	W200.550	REMOVE 8" PLUG	PLUG	1		1
	W200.551	INSTALL 8" PLUG	PLUG	1		1
(13)	W200.553	REMOVE 6" HYDRANT	HYDRANT	1		1
	W200.554	INSTALL 6" HYDRANT	HYDRANT	1		1
(13)	W200.556	REMOVE 6" GATE VALVE & BOX	ASSEMBLY	1		1
	W200.557	INSTALL 6" GATE VALVE & BOX	ASSEMBLY	1		1
	0504.605	4" POLYSTYRENE INSULATION	SQ. YD.	25		25

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM PARTICIPATING ITEMS	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2502.521	10" C.S. PIPE DRAIN	LIN. FT.	220		220
2502.551	10" C.S. INSPECTION TEES	LIN. FT.	7		7

SOD LOCATION AND QUANTITES

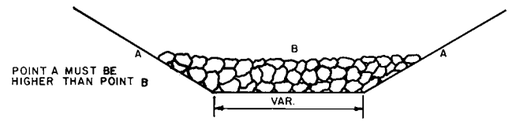
LOCATION		APPROX. QUANTITIES S.Y.	REMARKS
STA.104+00 - STA.175+00	MEDIAN	16,255	BOTTOM AND SLOPES
STA.104+00 - STA.124+00	RIGHT	4,000	18' WIDE DITCH LINER
STA.121+40 - STA.123+40	LEFT	700	DITCH AND SLOPES
STA. 0+58 - STA. 3+00	RIGHT	623	DITCH AND SLOPES

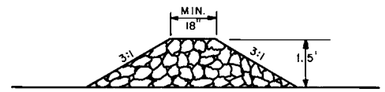
CROWN VETCH LOCATION AND QUANTITIES

LOCATION		APPROX. QUANTITIES ACRE	REMARKS
STA.126+00 - STA.138+50	RIGHT	1.10	2:1 INSLOPE
STA.126+00 - STA.134+00	LEFT	0.46	BACK SLOPE
STA.139+00 - STA.147+00	RIGHT	0.67	BACK SLOPE
STA.139+00 - STA.147+00	LEFT	0.79	BACK SLOPE
STA.147+00 - STA.149+00	RIGHT	0.14	2:1 INSLOPE
STA.152+00 - STA.164+00	RIGHT	0.61	BACK SLOPE
STA.154+00 - STA.160+00	LEFT	0.23	BACK SLOPE

(1) IN AREA'S DESIGNATED BY THE ENGINEER.
(2) WATER TO BE USED AS A DUST PREVENTATIVE AS DIRECTED BY THE ENGINEER.
(3) INCLUDES 11068 TONS FOR EAST BOUND LANE, 410 TONS FOR FIVE RIGHT TURN LANES, 601 TON FOR SERVICE DRIVE, 416 TON FOR 16th. AVE. N.E. APPROACH, 1807 TONS FOR ELEVEN APPROACHES AND 1054 TON FOR TEMPORARY CONNECTION STA. 104 WEST BOUND LANE TO STA. 112 EAST BOUND LANE.
(4) CATCH BASIN DESIGN "C" TO HAVE 24" TOP OPENING.
(5) INCLUDES 117 CU. YDS. FOR 22 DITCH CHECKS AND 74 CU. YDS. FOR OUTLET TREATMENT AT CULVERTS.
(6) INCLUDES 23 ACRES FOR SEED MIXTURE 2 AND 5 AND 4 ACRES FOR CROWN VETCH.
(7) QUANTITY BASED ON 2 TONS PER ACRE
(8) DISC ANCHOR MULCH IN SEED MIXTURE 2 AND 5 AREA'S.
(9) QUANTITY BASED ON 200# PER ACRE AND APPLIED TO SEED MIXTURE 2 & 5 AREA'S.
(10) HAY OR STRAW BALES TO BE USED FOR EROSION CONTROL AS DIRECTED BY THE ENGINEER.
(11) TRENCHING INCREMENTS BASED ON INPLACE EMBANKMENT & ROADWAY SECTION. ROADWAY RESTORATION NOT REQUIRED.
(12) THE PROVISIONS OF MN. DOT. SPECIFICATION 1903 COVERING COMPENSATION FOR INCREASE OR DECREASE QUANTITIES SHALL NOT APPLY.
(13) INCLUDES REMOVAL OF 6" D.I.P. AND TRENCHING.

ROCK OR STONE DITCH CHECK SECTIONS





NOTES FOR ROCK DITCH CHECKS

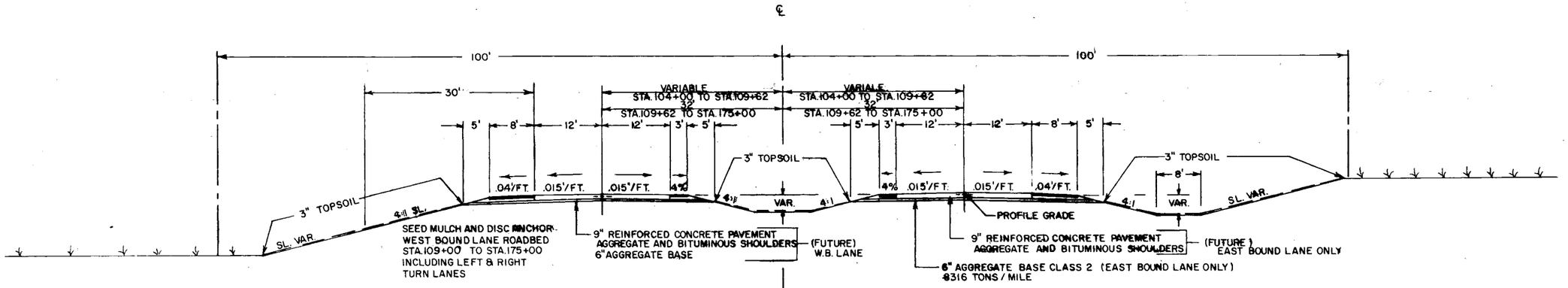
1. DITCH CHECKS MAY BE CONSTRUCTED WITH ROCKS OR STONES OBTAINED FROM THIS PROJECT.
2. DITCH CHECKS SHALL BE LEFT IN PLACE.
3. BASIS OF PAYMENT FOR DITCH CHECKS SHALL BE UNDER ITEM NO. 2511.501 RANDOM RIP RAP CLASS III.
4. DITCH CHECKS SHALL BE CONSTRUCTED AT LOCATIONS DESIGNATED BY THE ENGINEER DURING CONSTRUCTION.

STANDARD PLATES

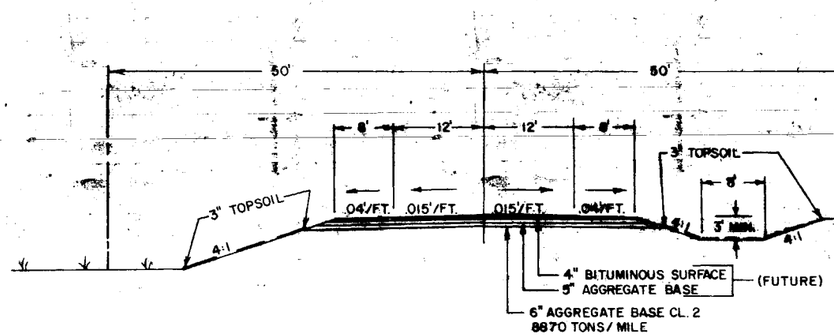
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO		DESCRIPTION
0004	A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000	K	REINFORCED CONCRETE PIPE
3007	B	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3014	J	REINFORCED CONCRETE PIPE DETAIL
3040	F	CORRUGATED METAL PIPE CULVERT
3100	G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110	G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3122	I	METAL APRON FOR C.M. PIPE-ARCH
3123	I	METAL APRON FOR C.M. PIPE
3124	B	METAL APRON CONNECTION
3133	B	RIPRAP AT RCP OUTLETS
3145	E	CONCRETE PIPE TIES
3221	C	CORRUGATED STEEL PIPE COUPLING BAND
4002	E	MANHOLE OR CATCH BASIN - DESIGN C - 24" TOP OPENING
4008	E	CATCH BASIN - DESIGN I
4010	G	CONC. SHORT CONE & ADJUSTING RING
4011	D	PRECAST CONCRETE BASE
4015	A	PRECAST CONCRETE MEDIAN DRAIN (WITHOUT ACCESS)
8000	I	STANDARD BARRICADES
9000	B	APPROACHES AND ENTRANCES
3142	A	OUTLET SCREENS FOR C.M. PIPES.

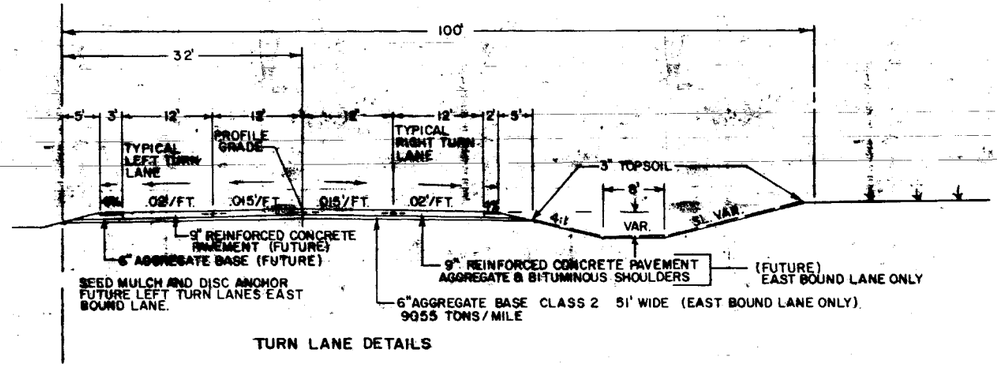
TYPICAL SECTIONS



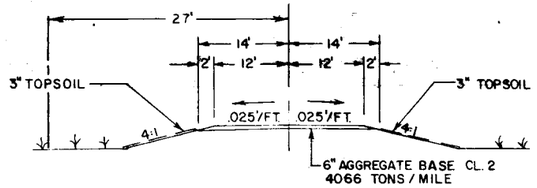
STA. 104+00 TO STA. 175+00



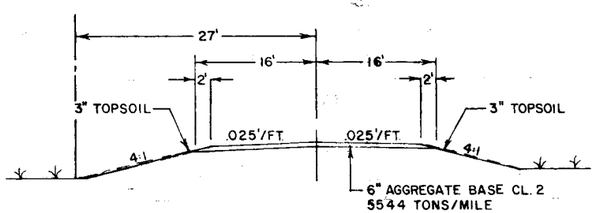
16th. AVE. N.E. LEFT STA. 125+35
STA.0+00 TO STA. 3+00



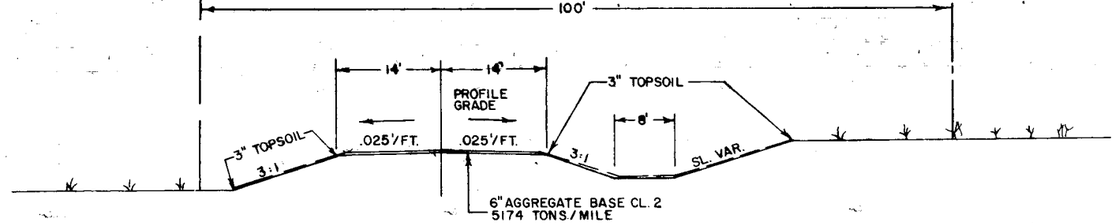
TURN LANE DETAILS



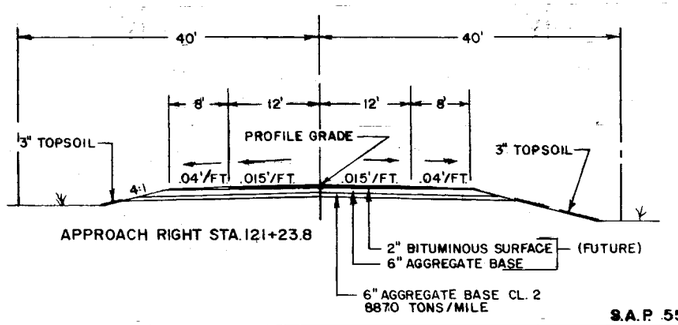
FRONTAGE ROAD 123' LEFT
STA.108+63 TO STA.111+47.5



FRONTAGE ROAD 123' LEFT
STA. 111+47.5 TO STA. 115+00



TEMPORARY CONNECTION
STA. 175+00 TO STA. 179+12



APPROACH RIGHT STA. 121+23.8

SEWER M.H. NO.5

ELEC. CABLE

SHOPKO APPROACH LT. STA. 103+00
INPL. 58" SPAN x 94' C.S. PIPE
2-58" SPAN G.S. PIPE-ARCH APRONS
INLET ELEV. 22.6 OUTLET ELEV. 21.3
NO CHANGE

SURVEY ℄
P.I. 106+03.47
ΔLT. 21° 47' 38"
D - 3° 00'
T - 367.68'
L - 726.46'
E - 35.07'

RES. DR. LT. 108+63
INPL. 42" SPAN x 32' C.S. PIPE-ARCH
2-42" SPAN G.S. PIPE-ARCH APRONS
SALVAGE 40 LIN. FT. CULV. & APRONS
NO DRIVE REQ'D.

CORPORATE LIMITS ROCHESTER

CENTER SECTION 24 T.107 N. R. 14 W.

P.T. 109+62.25

P.O.T. 94+59.24

NYSS "01"

110'

100'

P.C. 102+35.79

BEGIN SAP 55-622-04
STA. 104+00

105 SURVEY ℄

SURVEY ℄

SEWER M.H. NO.4

℄ CULV. STA. 96+00
SKEWED 13°
INPLACE 24" x 64' R.C. PIPE CL.2
2-24" R.C. PIPE APRONS
NO CHANGE

NOTE: ROADWAY FROM STA. 94+59.29 TO STA. 104+00 TO BE CONSTRUCTED BY MINN. DEPT. OF TRANSPORTATION IN CONJUNCTION WITH T.H. 63 CONSTRUCTION.

NOTE: SEE PLAN SHEET NO. 31 FOR TEMPORARY CONNETION FROM STA. 105+15 WEST BOUND LANE TO STA. 112+58.69 EAST BOUND LANE.

6TH AVE. N.E. +00

6TH AVE. N.E. RT. 103+00
NO CULV. INPL.
NO CHANGE

℄ CULV. STA. 102+77
SKEWED 45°
INPL. 77" SPAN x 140' C.S. PIPE-ARCH CULV. 8 GAGE
2-77" SPAN G.S. PIPE-ARCH APRONS
NO CHANGE

PROP. COR.

OUTLOT "A"

OUTLOT "B"

OUTLOT "C"

OUTLOT "D"

PROP. COR.

OUTLOT "A"

16

15

14

13

12

NORTHERN SLOPES THIRD

NORTHERN SLOPES SECOND

M.H. NO.1 55' RT. STA. 109+15
TOP CASTING ELEV. 1041.26
ADJUST CASTING TO ELEV. 1043.87

CONST. ℄ CULV. & CATCH BASIN RT. STA. 105+60
24"x60' R.C. PIPE CL.2 & 1-24" R.C. PIPE OUTLET APRON
CONST. CATCH BASIN DESIGN "C" 4' RT.
STA. 105+60 DRAIN ELEV. 34.1
OUTLET ELEV. 30.0 CULV. OUTLET ELEV. 29.7
PRECAST CONCRETE MEDIAN DRAIN (WITHOUT ACCESS)
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

B.M. EL. 1016.10
SPK. IN P.P. 87'
RT. STA. 95+26

B.M. EL. 1029.95
SPK. IN P.P. 66'
RT. STA. 103+45

B.M. EL. 1041.97
R.R. SPK. IN P.P. LT.
STA. 108+85

FINISHED ℄ ELEV. EAST BOUND LANE 32.65

FINISHED ℄ ELEV. EAST BOUND LANE 43.40

SURVEY ℄ PROFILE

+2.15%

+00

1050
1040
1030
1020
1010
1000

16.4 16.3 16.3 16.3 16.2 17.2 18.3 20.2 22.2 24.1 26.2 28.7 28.2 30.7 34.0 37.7 39.9 42.2

34.80 36.95 39.10 41.25

+56 +80 +00

95 100 105 109

Fed. Proj. No.

CONST ℄ CULV IN SERVICE
DRIVE LT STA. 109+00
18"x42' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

SEPTIC TANK

RES. DR., LT. 110 +63
INPL. 18" x 20' C.M.P.
NO APRONS
REMOVE

MOVE DR. TO STA. 111+47.5
42"SPAN x 42' C.S. PIPE-ARCH
2-42"SPAN G.S. PIPE-ARCH APRONS

CONST ℄ CULV. IN SERVICE
DRIVE LT. STA. 111+20
SKEW 24°
18"x 48' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F. E. LT. 114+97
INPL. 18" x 20' C.M.P.
NO APRONS
REMOVE
NO ENT. REQ'D.

CONST ℄ CULV. RT. STA. 112+00 E. B. LANE
28"SPAN x 54' R.C. PIPE-ARCH CL. 2A
2-28"SPAN R.C. PIPE-ARCH APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

CONST ℄ CULV. RT. STA. 122+00 E.B. LANE
22"SPAN x 68' R.C.P.-A. CL. 2A
2-22"SPAN R.C. PIPE-ARCH APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
CONST. RIP RAP FLUM AT OUTLET
8 CU. YDS. RANDOM RIP RAP CL. III
18" DEPTH
4 CU YDS. GRANULAR FILTER
9" DEPTH

RES. DR., LT. 121 +64
INPL. 15" x 24' C.M.P.
NO APRONS
REMOVE
28"SPAN x 56' C.S. PIPE-ARCH
2-28" G.S. PIPE-ARCH APRONS

W-10 8"GATE VALVE & BOX 77' RIGHT
STA. 121+36 ELEV. 68.9
ADJUST GATE VAVLE TO ELEV. 75.43
W-3 STA. 121+34 (FWD. TAN.)
F&I 8"x8" TEE 96' RT.
F&I 8" BEND 11 1/4° 60' RT.
F&I 16'-8" DIP 96' RT. TO 65' LT.
F&I 8" PLUG 65' LT. (ELEV 1072.0)

PLACE 8'x20'x4" POLYSTYRENE OVER WATERMAIN AND SANITARY SEWER 17.8 SQ.YDS.

PLACE 4'x8'x4" POLYSTYRENE OVER WATERMAIN 3.6 SQ.YDS.

PLACE 4'x8'x4" POLYSTYRENE OVER WATERMAIN 3.6 SQ.YDS.

CORPORATE LIMITS ROCHESTER

T.E. P.T. P.C. P.I. R.C. GAR. HO. FUTURE STREET

M.H. NO.1 8" SAN. 8" SAN. 8" SAN.

Fed. Proj. No.

16TH. AVE. N.E. 125 + 55
NO CULV.
SEE SHEET NO 10 FOR STREET DETAIL.

CONST. 10" TILE STA. 127 + 65
10"x 220' C.S. PIPE DRAIN
7 LIN. FT. C.S. INSPECTION TEE 108' LT.
F.& I. APPROVED PLUG AT INLET
F.& I. OUTLET SCREEN
INLET ELEV. 03.0
OUTLET ELEV. 81.0

Δ 28°±
T 50.0'
L 98.00'
R 200.54'
D 28.5708°

CONST. APPROACH LT. STA. 132+35
28" SPAN x 60' C.S. PIPE-ARCH
2-28" SPAN G.S. PIPE APRONS

ROCHESTER

P.C. 1+64.2

CORPORATE LIMITS

WOODS

P.T. 126 + 76.83

CONST. ℄ CULV. STA. 125+90
42" x 164' R.C. PIPE CL. 2 2-42" R.C. PIPE APRONS
1-CATCH BASIN DESIGN I AND PRECAST CONC. MEDIAN DRAIN (WITHOUT ACCESS)
CASTING INLET ELEV. 97.4 F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
16 CU. YDS. CLASS III RIPRAP, 18" DEPTH
8 CU. YDS. GRANULAR FILTER 9" DEPTH
CONST. TIMBER WEIR AT INLET
SEE SHEET NO. 16 FOR WEIR DETAIL

CONST APPROACH RT STA. 132+35
54"x 86" R.C. PIPE CL. V 256' RT. ℄
2-54" R.C. PIPE APRONS
F & I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
24 CU. YDS. CL. III RIP RAP 18" DEPTH
12 CU YDS GRANULAR FILTER 9" DEPTH
INLET ELEV 95 I OUTLET ELEV 92.8

CONST. ℄ CULV RT STA 132+96 E.B. LANE
28" SPAN x 78' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
F & I CONC. PIPE JOINT TIES
PLACE CULV ON "B" BEDDING

CONST ℄ CULV STA 135+80 SKEW 25°
42"x164' R.C. PIPE CL. 3
42"x150' R.C. PIPE CL. 4
2-42" R.C. PIPE APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
16 CU YDS. CL. III RIP RAP 18" DEPTH
8 CU. YDS GRANULAR FILTER 9" DEPTH
CONST TIMBER WEIR AT INLET APRON
CONST. DITCH BLOCK LEFT STA 136+00 TO A ELEV. OF 43.8
SEE SHEET NO. 19 FOR WEIR DETAIL

CL. 7 ACRES — GR. 7 ACRES

B.M. EL. 1099.58
TOP P.T. ROD
126 + 76.83

B.M. EL. 1134.28
SPK. IN POPLAR
TREE ℄ 134+16

FINISH ℄ ELEV EAST BOUND LANE

EQUATION 03.99336 = 03.99336

P.T. 126+32.= P.O.T. 126+76.83

PROFILE 75' LT.
PROFILE 75' RT.

+4.8%

CASTING INLET ELEV. 97.4
TOP WEIR ELEV. 94.0
INLET FLOWLINE ELEV. 92.3
OUTLET ELEV. 86.5

PI + 50
ELEV 4591
500 V.C.
M=1.375

+7.0%

P.V.T. +00
P.V.C. +00
ELEV. 33.91

TOP WEIR ELEV. 42.0
INLET FLOWLINE ELEV. 40.3

INLET ELEV. 31.2

OUTLET ELEV. 170

SUBCUT
EXCAVATE 1.0' BELOW SUBGRADE ELEVATION FROM STA. 126+90 TO STA. 128+10 AND FROM STA. 129+00 TO STA. 134+15

COMMON EXC.	31342	EMB	90946
ROCK EXC.	68630		
SUBGRADE EXC.	1784		
SALVAGED TOPSOIL	3480 (EV)		
CHANNEL EXC.	2919		
MUCK EXCAVATION	9271		

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CONST. APPROACH LT. STA. 152+00
18"x66' C.S. PIPE
2-18" G.S. PIPE APRONS
INLET ELEV. 17.5 OUTLET ELEV. 15.0

CONST. ℄ CULV. RT. STA. 140+00
28" SPAN x 48' R.C. PIPE-ARCH CL. 2A
2-28" SPAN R.C. PIPE-ARCH APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
CONST. DITCH BLOCK AT INLET

CONST. ℄ CULV. STA. 149+70 SKEW 45°
30"x88' R.C. PIPE CL. 3
30"x112' R.C. PIPE CL. 4
30"x104' R.C. PIPE CL. 5
2-30" R.C. PIPE APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING
10 CU. YDS. CL. III RIP RAP 18" DEPTH
5 CU. YDS. GRANULAR FILTER- 9" DEPTH

CONST. APPROACH RT. STA. 152+00
28" SPAN x 56' C.S. PIPE-ARCH
2-28" SPAN G.S. PIPE-ARCH APRONS
INLET ELEV. 17.5 OUTLET ELEV. 17.2

CONST. ℄ CULV. RT. STA. 152+60 E.B. LANE
22" SPAN x 48' R.C. PIPE-ARCH CL. 2A
2-22" SPAN R.C. PIPE-ARCH APRONS
F&I CONC. PIPE JOINT TIES
PLACE CULV. ON "B" BEDDING

CL. 2.9 ACRES — GR. 2.9 ACRES — CL. 2.2 ACRES — GR. 2.2 ACRES — CL. 1.0 ACRES — GR. 1.0 ACRES

B.M. EL. 1213.14
TOP SURVEY DISC.
LT. 15' STA. 142+22

B.M. EL. 1207.00
SPK. IN 4" STUMP
℄ STA. 147+28

FINISHED G. ELEV. EAST BOUND LANE

℄ PROFILE
PROFILE 75' LT.
PROFILE 75' RT.

PVC +00 ELEV. 63.41

INLET ELEV. 72.6
OUTLET ELEV. 72.3

PI +00
ELEV. 19.41
1600' V.C.
M=12.92

SUB CUT
EXCAVATE 1.0' BELOW SUBGRADE ELEV.
FROM STA. 146+70 TO STA. 147+20 AND
FROM STA. 151+00 TO STA. 154+80.

COMMON EXC.	3576	EMB	14138
ROCK EXC.	12478		
SUBGRADE EXC.	48		
SALVAGED TOPSOIL	423 (EV)		

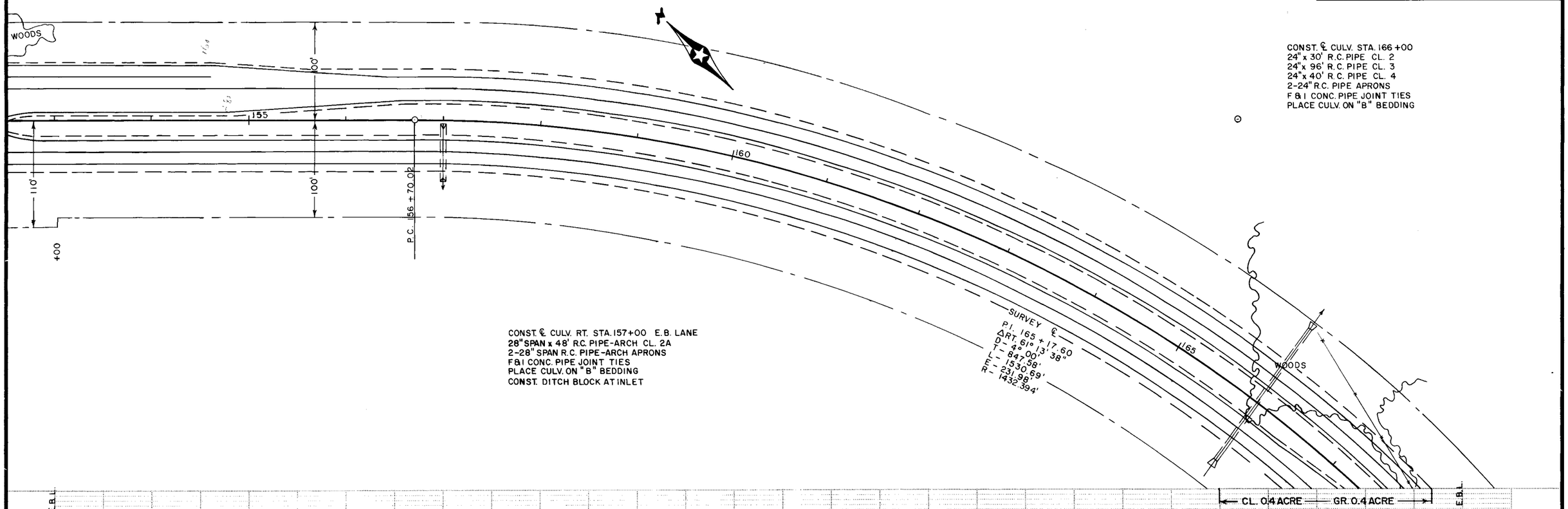
OUTLET ELEV. 87.0

TOP WEIR ELEV. 06.5
INLET FLOWLINE ELEV. 05.5

INLET ELEV. 18.9
OUTLET ELEV. 18.5

COMMON EXC.	6692
ROCK EXC.	6081
SUBGRADE EXC.	755
SALVAGED TOPSOIL	589 (EV.)
EMB.	10,067

Fed. Proj. No.



COMMON EXC.	8869
ROCK EXC.	8184
SUBGRADE EXC.	400
SALVAGED TOPSOIL	800 (EV)
EMB.	13061

SUB CUT
EXCAVATE 1.0' BELOW SUBGRADE ELEVATION
FROM STA. 159+50 TO STA. 164+20

~~State Proj. No.~~ SAP 55-622-04 C.S.A.H. 22 OLMSTED COUNTY **Sheet No.** 8 **of** 32 **Sheets**

Copy Equipment Form #2

Fed. Proj. No.

CONST. APPROACH LT. STA. 171+00
NO CULV. REQ'D.

CONST. DITCH LT. STA. 175 TO STA. 176
QUANTITES INCLUDED IN COMMON & ROCK EXCAVTION.

F.E. 178+90
INPL. 15"x 34' C. M. P.
REMOVE
NO ENT. REQ'D.

CONSTRUCT DITCH TEMPORARY

WOODS

TEMPORARY CONNECTION STA. 175 +00 TO STA. 179 +12

END S.A.P 55-622-04
STA. 179+24.87

P.O.T. 179 +43.63 NORTH STA. =
P.O.T. 199 +60.07 SOUTH STA.

82° 00' 13"

P.O.T. 179 +24.87

P.O.T. C.S.A.H. 2 109 +27.47

C.S.A.H. 2

CONST. APPROACH RT. STA. 171+00
18"x 56' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS
INLET ELEV. 26.5 OUTLET ELEV. 26.2

E.B.L. P.T. 171 +66.51 = ℄ P.T. 172 +00.7
E.B.L. P.O.T. 172 +00.71

CONST. ℄ CULV. STA. 178+80 SKEW 22°
18"x 56' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

CL. 1.0 ACRE — GR. 1.0 ACRE — CL. 3 TREES — GR. 3 TREES

B.M. EL. 1228.25
SPK. IN STUMP LT.
18' STA. 169+18

B.M. EL. 1229.26
SPK. IN P.P. LT.
19' STA. 178+25

EQUATION E.B. LANE

FINISHED ℄ GRADE EAST BOUND LANE

FINISHED ℄ GRADE E.B.L.

P.V.C. +95.61404
ELEV. 31.26631

P.I. +95.61404
ELEV. 32.88632
600' V.C.
M = 0.855

P.V.T. +29.81404
ELEV. 31.09112

FUTURE ℄ GRADE STA. 175 +00 TO STA. 179 +25.

+0.54 %

-0.6 %

-1.84 %

0.0 %

P.I. +00
ELEV. 29.4
200' V.C.
M = 0.31

P.I. +50.0
ELEV. 24.80
100' V.C.
M = 0.23

INLET ELEV. 21.5
OUTLET ELEV. 21.0

℄ GRADE TEMPORARY CONNECTION STA. 175 +00 TO STA. 179 +12
ELEVATION TOP 6" AGGREGATE BASE

℄ PROFILE
PROFILE 75' LT.
PROFILE 75' RT.

COMMON EXC.	6854	EMB.	9764
ROCK EXC.	4782		
SALVAGE TOPSOIL	883 (EV)		
SUBGRADE EXC.	1133		

SUB CUT
EXCAVATE 1.0' BELOW SUBGRADE ELEV.
FROM STA. 169 +00 TO STA. 176 +00 AND
STA. 178 +40 TO STA. 179 +00.

170 175

~~State Proj. No.~~ S.A.P. 55-622-04 C.S.A.H. 22 OLMSTED COUNTY

Copy Equipment Form #2

Fed. Proj. No.

RES. DR. STA. 4+08
INPL. 15" x 22' CMP
NO CHANGE

P.I. 2+57.40
Δ LT. 22° 56'
D 12° 30'
T 92.98'
L 183.47'
E 9.3'

N

P.C. 1+64.42

P.T. 3+47.89

T.E.

110'

110'

℄ CSAH 22

P.T. 126+76.83

WOODS

WOODS

Ho.

Ga.

+08

+78

+49

+15

+91

+90

33'

33'

16th. Ave. N.E.

Ho.

Ga.

Ho.

RES. DR. RT. STA. 1+78
INPL. 15"x 32' C.M.P.

REMOVE
18"x 32' C.S. PIPE
2-18" G.S. PIPE APRONS

RES. DR. RT. STA. 3+49
INPL. 18" SPAN x 20' C.M.P.

NO CHANGE

RES. DR. RT. STA. 4+15
INPL. 18" SPAN x 20' C.M.P.

NO CHANGE

RES. DR. RT. STA. 5+91
INPL. 15"x 26' C.M.P.

NO CHANGE

CL. 6 — GR. 6

FINISHED ℄ ELEV.

99.2 99.2

+69 +50.00.5 04.61 16.7 +50.22.95

FINISHED ℄ ELEV.

P.I. +60.0
ELEV. 99.2
120' V.C.
M = 1.875

P.V.C. +00 ELEV. 99.2

P.V.T. +20 ELEV. 06.7

+12.5 %

END CONST.
STA. 3+50

0.0%

SUB CUT
EXCAVATE 1.0' BELOW SUBGRADE ELEV.
FROM STA. 1+30 TO STA. 3+00.

NOTE: QUANTITIES FOR 16th AVE. N.E. ARE INCLUDED IN TOTAL IN BALANCE STA. 104+00 TO STA. 144+72.

88.6 89.2 88.6 89.7 91.2 92.0 99.8 02.2 04.2 16.9 23.3 30.3 31.1 41.9 54.8 67.4

+20 +28 +75 +35 +78 +08 +15

60 50 40 30 20 10 1100 1090

0 1 2 3 4 5 6 7

Copy Equipment Form #2

~~State Proj. No.~~ S.A.P. 55-622-04 C.S.A.H. 22 OLMSTED COUNTY

Sheet No. 10 of 32 Sheets