MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE AND BITUMINOUS SURFACING

LOCATED ON C.S.A.H. 22 **BETWEEN** T.H. 63 AND 1600 FT. EAST. APPROX. 0.5 MI. N. OF ROCHESTER **(GEOGRAPHIC DESCRIPTION)**

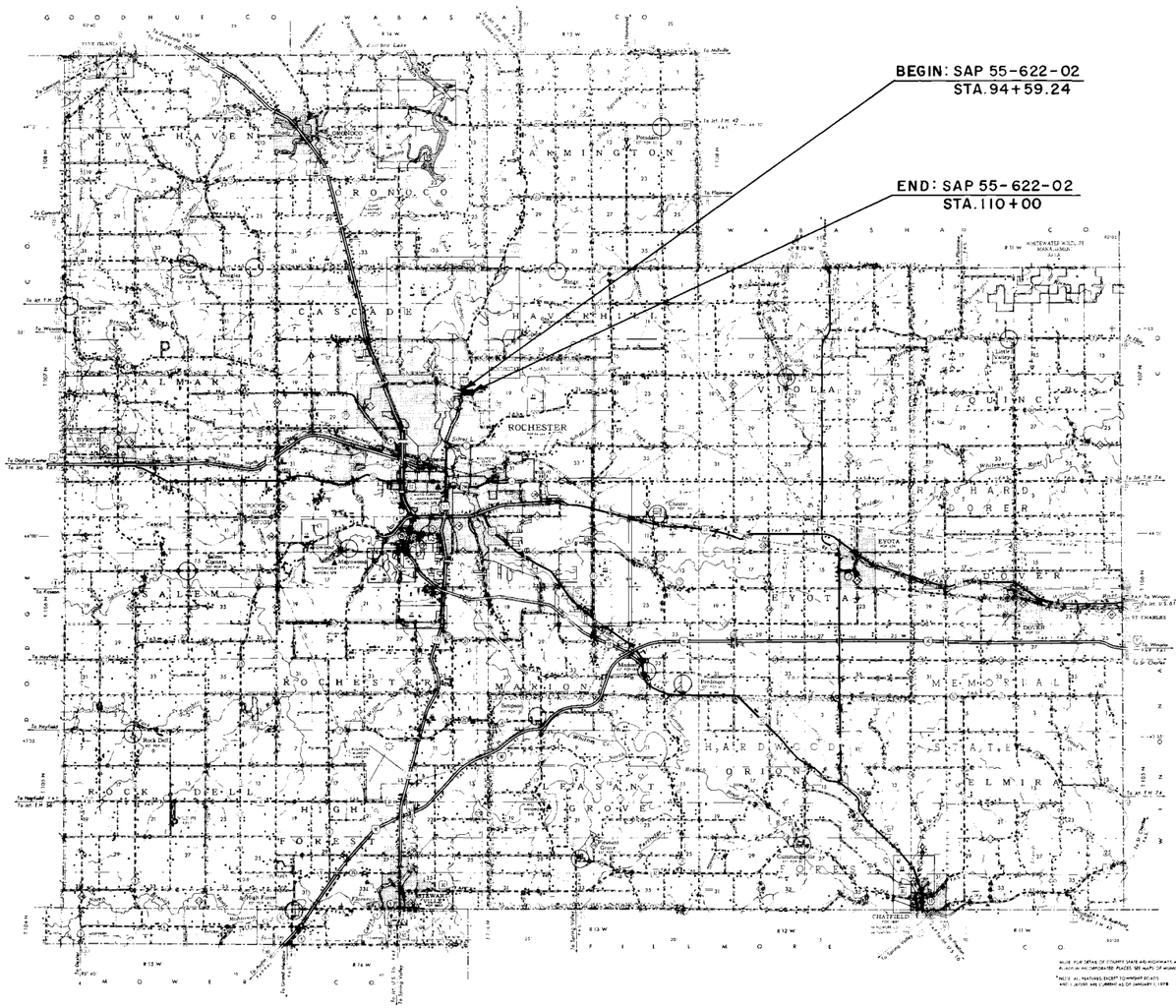
FROM 1391.45' N.W. OF CENTER SEC. 24 T. 107 N. R. 14 W. **TO** 147.65' E. OF CENTER SEC. 24 T. 107 N. R. 14 W. **(LEGAL DESCRIPTION)**

STATE PROJ. NO. .....

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

~~**STATE PROJ. NO.**~~ SAP 55-622-02

GROSS LENGTH	1540.76	FEET	0.292 MILES
BRIDGES-LENGTH		FEET	MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	1540.76	FEET	0.292 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
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

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 T-BUR
BURIED ELECTRIC CABLE P-BUR
AERIAL TELEPHONE CABLE T-AE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

VERTICAL CONTROL
THE ELEVATIONS ON THIS PLAN ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

SCALES

PLAN		50 FEET
PROFILE		50 FEET HORZ. & 10' VERT.
INDEX MAP		10,560 FEET
CROSS SECTIONS		10 FEET

STATE AID TITLE SHEET 5/77 ALJENSON, MPLS. 55455

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 AND LAYOUT MAP

SHEET NO. 2 ESTIMATE OF QUANTITIES & TYPICAL SECTIONS.

SHEET NO. 3 PLAN AND PROFILE.

SHEET NO. 4 TO 7 CROSS SECTIONS.

Recommended for Approval Roger E. Plumb 5-4-1982
ROCHESTER CITY ENGINEER

DESIGN DESIGNATION

R		ΣN18(20)	
ADT (Current Year)	=	Design Speed	50 MPH
ADT (Future Year)	=	Based on	Stopping Sight Distance
DHV (Design Hr. Vol.)	=	Height of eye	3.75' Height of object 0.5'
D (Directional Distr.)	= %	Design Speed not achieved at:	
T (Heavy Commercial)	= ∠150	STA.	TO STA. MPH
SOIL FACTOR	100	STA.	TO STA. MPH
9 TON DESIGN		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 6-1-82 REG. NO. 10219 ENGR. J.K. Dahlen

COUNTY Olmsted

Recommended for Approval J.J. Meindl 6-1 1982
DISTRICT STATE AID ENGINEER

Recommended for Approval Delvert D. Ottdahl 6-10 1982
STATE AID PLANS AND SPECS ENGINEER

Approved 6/10 1982 Hartley M. Day
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-622-02
~~**STATE PROJ. NO.**~~ .....
SHEET NO. 1 **OF** 7 **SHEETS**

AS BUILT PLANS

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM	1		1
	2104.501	REMOVE PIPE CULVERTS	LIN. FT.	75		75
	2104.521	SALVAGE PIPE CULVERTS	LIN. FT.	84		84
	2105.501	COMMON EXCAVATION (P)	CU. YD.	9917		9917
	2105.507	SUBGRADE EXCAVATION (P)	CU. YD.	2751		2751
①	2123.503	MOTOR GRADER	HOUR	4		4
①	2123.508	14 CU. YD. SCRAPER	HOUR	6		6
①	2123.509	DOZER	HOUR	6		6
②	2211.501	AGGREGATE BASE, CLASS 2	TON	4400		4400
	2221.501	AGGREGATE SHOULDERING, CLASS 2	TON	333		333
	2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	62		62
③	2331.508	WEARING COURSE MIXTURE	TON	675		675
④	2331.514	BASE COURSE MIXTURE	TON	489		489
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	220		220
	2451.507	GRANULAR BEDDING (CV) (P)	CU. YD.	50		50
	2501.511	24" R.C. PIPE CULVERT, CLASS II	LIN. FT.	64		64
	2501.515	24" R.C. PIPE APRONS	EACH	2		2
	2501.521	42" SPAN C.S. PIPE-ARCH CULVERT (14 GAGE)	LIN. FT.	32		32
	2501.521	58" SPAN C.S. PIPE-ARCH CULVERT (12 GAGE)	LIN. FT.	94		94
	2501.521	77" SPAN C.S. PIPE-ARCH CULVERT (8 GAGE)	LIN. FT.	140		140
	2501.525	42" SPAN G.S. PIPE-ARCH APRONS	EACH	2		2
	2501.525	58" SPAN G.S. PIPE-ARCH APRONS	EACH	2		2
	2501.525	77" SPAN G.S. PIPE-ARCH APRONS	EACH	2		2
	2511.501	RANDOM RIPRAP, CLASS "B"	CU. YD.	57		57
	2511.504	FILTER BLANKET, TYPE I	CU. YD.	29		29
	2575.501	ROADSIDE SEEDING (P)	ACRE	5.4		5.4
	2575.502	SEED MIXTURE 5	POUND	270		270
	2575.505	SODDING	SQ. YD.	175		175
	2575.511	MULCH MATERIAL, TYPE I	TON	11		11
	2575.519	DISC ANCHORING (P)	ACRE	5.4		5.4
	2575.531	COMMERCIAL FERT. ANALYSIS 12-12-12	TON	0.5		0.5
		NON-PARTICIPATING ITEMS				
	0503.605	Z-CRETE INSULATING CONCRETE	CU. YD.	3.6		3.6
	0504.605	WATER MAIN INSULATION 4" THICK	SQ. YD.	21.3		21.3

(P) PLAN QUANTITY

① EQUIPMENT HOURS TO BE USED FOR OBLITERATING OLD ROAD AT LOCATIONS SHOWN IN THE PLANS.

② AGGREGATE BASE QUANTITY INCLUDES 70 TONS FOR ONE RIGHT TURN LANE, 412 TONS FOR 6th AVE. N.E. AND 314 TON FOR TWO APPROACHES.

③ WEARING COURSE QUANTITY INCLUDES 35 TONS FOR ONE RIGHT TURN LANE, 83 TONS FOR 6th AVE. N.E. AND 80 TONS FOR TWO APPROACHES.

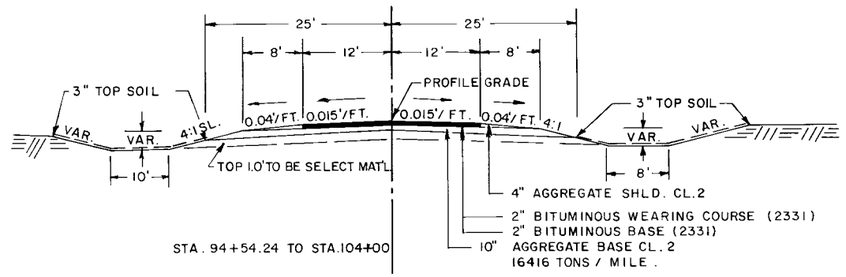
④ BASE COURSE QUANTITY INCLUDES 35 TONS FOR ONE RIGHT TURN LANE, 83 TONS FOR 6th AVE. N.E. AND 80 TONS FOR TWO APPROACHES.

STANDARD PLATES

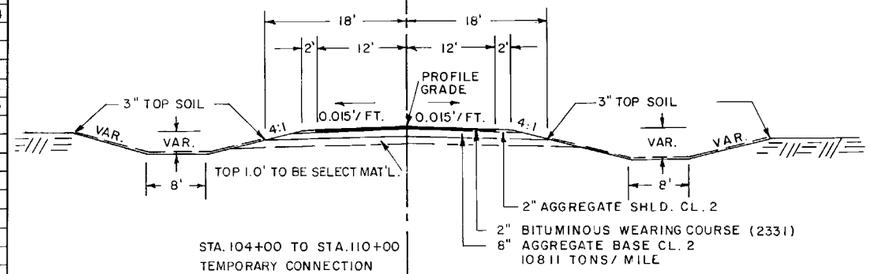
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO	DESCRIPTION
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES.
3000 H	REINFORCED CONCRETE PIPE
3040 F	CORRUGATED METAL PIPE CULVERT
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE.
3122 I	METAL APRON FOR C.M. PIPE-ARCH CULVERT.
3124 A	METAL APRON CONNECTION.
3133 A	RIPRAP AT RCP OUTLETS
3134 A	RIPRAP AT CMP OUTLETS
3145 A	CONCRETE PIPE JOINT TIES
3221 B	CORRUGATED STEEL PIPE COUPLING BAND
8000 H	STANDARD BARRICADES
9000 B	APPROACHES AND ENTRANCES
9102 C	SODDING AT PIPE CULVERT ENDS

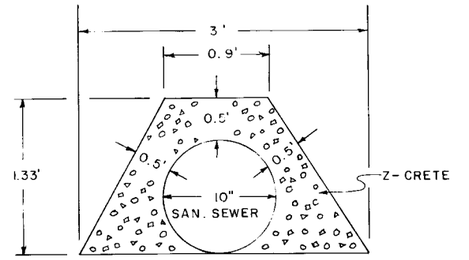
TYPICAL SECTIONS



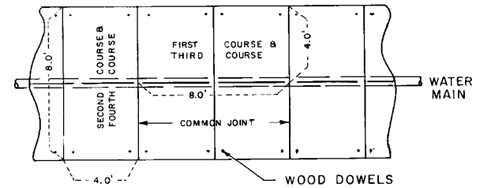
STA. 94+54.24 TO STA. 104+00



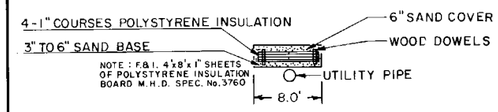
STA. 104+00 TO STA. 110+00
TEMPORARY CONNECTION



Z-CRETE INSULATION & PROTECTION
FOR 10" SAN. SEWER STA. 95+48
NOT TO SCALE

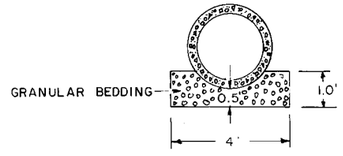


PLACE INSULATION BETWEEN WATER MAIN AND CULV. STA. 102+77.
PLACE INSULATION BETWEEN WATER MAIN AND CULV. LT. STA. 103+00.

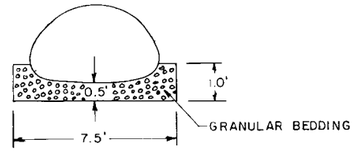


TYPICAL LAYOUT FOR POLYSTYRENE INSULATION

BEDDING DETAIL
CENTERLINE CULV. STA. 96+00
NO SCALE



BEDDING DETAIL
CENTERLINE CULV. STA. 102+77
NO SCALE



NOTE: MATERIAL FROM THE UPPER 1.0' OF THE NATURAL TOP SOIL SHALL NOT BE USED IN THE UPPER 1.0' OF THE ROAD BED. 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 COMMON 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 STEEL AND REINFORCED CONCRETE PIPE CULVERT EXCAVATION WILL BE CONSIDERED INCIDENTAL, AND WILL BE INCLUDED FOR PAYMENT UNDER UNIT PRICE FOR "PIPE CULVERT."

NOTE: SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW SUBGRADE ELEVATION OR 1.0' BELOW ORIGNAL GROUND LINE AS SHOWN IN THE CROSS SECTIONS. EXCAVATION HAS BEEN COMPUTED AND IS LISTED AS SUBGRADE EXCAVATION. BACKFILL WITH SELECT MATERIAL FROM R/W. TAPERS SHALL BE 50:1 IN ALL CASES.

NOTE: ALL DIMENSIONS AND SLOPES SHOWN ON TYPICAL SECTIONS ARE APPROXIMATE.

S. A. P. 55-622-02
State Proj. No.

AS BUILT PLANS

ARMSTRONG, INC. MINNEAPOLIS 11425

Fed. Proj. No.

SEWER M.H. NO. 5

P.I. 95+70.00
Δ RT. 9° 00'
D 5° 30'
T 81.98'
L 163.64'
E 3.22'
R 1041.74'

ELEC. CABLE

CONST. APPROACH LT. STA. 103+00
58" SPAN x 94' C.S. PIPE ARCH CULV. 12 GAGE
2-58" SPAN G.S. PIPE-ARCH APRONS
INLET ELEV. 22.6 OUTLET ELEV. 21.3
21 CU.YDS. RANDOM RIP RAP CL. "B" 18" DEPTH
11 CU.YDS. FILTER BLANKET TYPE I 9" DEPTH
PLACE CULV. 58' LT. ℄
ISLAND TO BE CONSTRUCTED BY OTHERS.
42 SQ.YDS. SOD AT INLET APRON
PLACE 7.1 SQ.YDS. POLYSTEYRENE OVER WATER MAIN
8'x8' PANEL 4" THICK

P.I. 103+75.93
Δ LT. 9° 06'
D 3.25365°
T 140.14'
L 279.69'
E 5.57'
R 1760.97'

RES. DR. LT. 108+63
INPL. 18"x30' C.M.P.
NO APRONS
REMOVE

42" SPAN x 32' C.S. PIPE-ARCH CULV.
2-42" SPAN G.S. PIPE-ARCH APRONS
25 SQ.YDS. SOD INLET APRON
28 SQ.YDS. SOD OUTLET APRON

SECTION 214 T.107N. R.14W.

P.C. 102+35.79
P.T. 105+15.48
P.C. 107+65.95
P.T. 109+47.29

10" SAN.
PROPOSED FUTURE CONSTRUCTION
12:1 TAPER
SURVEY CENTERLINE
50' R.
8" SAN.

P.I. 108+56.99
ΔLT. 12° 41' 38"
D 7° 00'
T 91.04'
L 181.34'
E 5.05'
R 818.51'

TEMPORARY CONNECTION
FROM STA. 104+00 TO STA. 110+00

SEWER M.H. NO. 4
P.T. 96+51.98
P.I. 94+59.24
P.C. 94+88.34
℄ TH. 63

INTERSECTION TH. 63 & 33rd St. N.E.
INPL. 24"x38' C.M.P / 2-APRONS.
REMOVE

BEGIN: SAP 55-622-02
STA. 94+59.24

CONST. ℄ CULV. STA. 96+00
SKEW 13°
24"x64' R.C. PIPE CULV. CL. II
2-24" R.C. PIPE APRONS
PLACE CULV. ON 6" OF GRANULAR BEDDING 10 CU.YDS. (CV)
F. & I. CONC. PIPE JOINT TIES.
13 SQ. YDS. SOD AT INLET APRON
16 SQ. YDS. SOD AT OUTLET APRON

OBLITERATE OLD ROAD BY EQUIPMENT HOURS

33rd. st. N.E.
TO T.H. 63
6th AVE. N.E. +88

6th AVE. N.E. RT 103+00
INPL. 72"x84' C.M.P. SPAN
NO APRONS
SALVAGE CULV.
NO CULV. REQ'D.

CONST. ℄ CULV. STA. 102+77
SKEW 45°
77" SPAN x 140' C.S. PIPE ARCH CULV. 8 GAGE
2-77" SPAN G.S. PIPE ARCH APRONS
PLACE CULV. ON 6" OF GRANULAR BEDDING 40 CU.YDS. (CV)
36 CU.YDS. RANDOM RIP RAP CLASS "B" 18" DEPTH
18 CU.YDS. FILTER BLANKET TYPE I 9" DEPTH
51 SQ.YDS. SOD AT INLET APRON
PLACE 14.2 SQ.YDS. POLYSTYRENE OVER WATER MAIN 4" THICK 8'x16' PANEL.

END: SAP 55-622-02
STA. 110+00

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

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

FINISHED ℄ ELEVATIONS

P.I. +00
ELEV. 17.02
300' V.C.
M = 0.61875

P.V.C. +50 ELEV. 16.645
P.V.T. +50 ELEV. 19.87
P.V.C. +42.50 ELEV. 25.4275
P.I. +92.5
ELEV. 28.27.75
300' V.C.
M = 0.15
P.V.T. +42.50 ELEV. 31.7375
P.I. +32.0
ELEV. 429.86

+0.25%
+1.9%
+2.3%
+2.05%

INLET ELEV. 11.90
OUTLET ELEV. 11.68

INLET ELEV. 22.83
OUTLET ELEV. 21.00

SUBGRADE EXCAVATION:
EXCAVATE 1.0' BELOW SUBGRADE ELEVATION OR 1.0' BELOW ORIGINAL GROUND LINE AS SHOWN IN THE CROSS SECTIONS FROM STA. 94+80 TO STA. 110+00.

COMMON EXCAVATION	9917	1004 CU.YDS. TOPSOIL 8913 CU. YDS. COMMON EXC.
SUBGRADE EXCAVATION	2751	CU. YDS.
EMBANKMENT	5672	CU. YDS.

NOTE: EXCESS EXCAVATION NOT REQUIRED IN ROADWAY EMBANKMENT TO BE STOCKPILED RIGHT OF STA. 97+00 TO STA. 101+00

~~State Proj. No.~~ SAP 55-622-02 OLMSTED COUNTY **Sheet No. 3 of 7 Sheets**

AS BUILT PLANS

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