PLAN 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
RIVER OR CREEK
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
BRUSH
NURSERY
CATCH BASIN
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 POLE
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRICAL CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRICAL MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRICAL CABLE
AERIAL TELEPHONE CABLE
SEWER (SANITARY OR SEWER)
SEWER MANHOLE

EROSION CONTROL SYMBOLS

TEMPORARY SILT FENCE
RIP RAP DITCH CHECKS

SCALES

PLAN 0 100'
PROFILE 0 100' HORIZ. 0 10' VERT
INDEX MAP 0 5,280'

MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

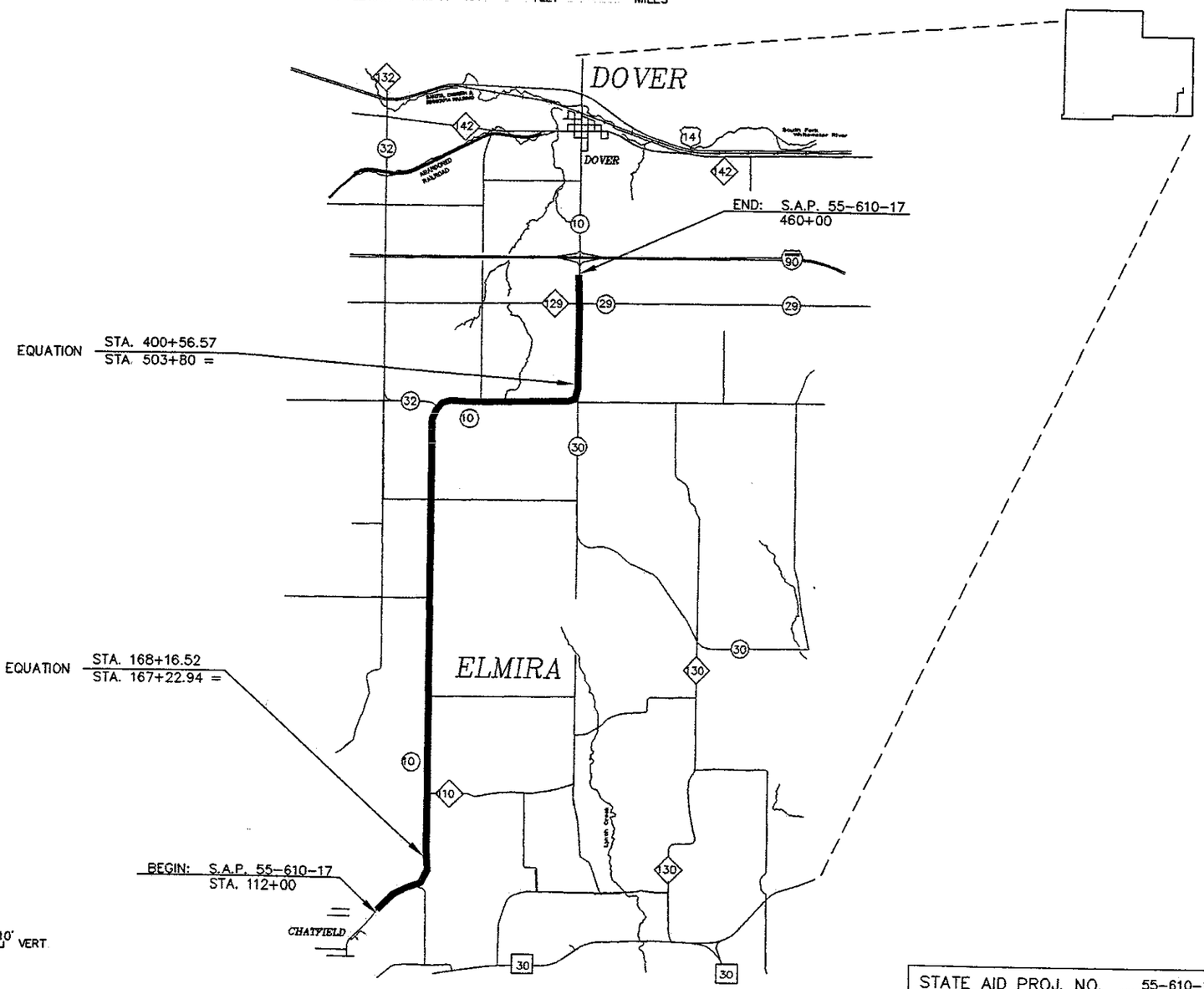
CONSTRUCTION PLAN FOR PAVEMENT EDGE DRAINS

LOCATED ON OLMSTED CSAH 10 BETWEEN CHATFIELD AND 700' S. OF JCT. CSAH 10 & I-90 (GEOGRAPHIC DESCRIPTION)

FROM 1570' W. & 135' S. OF E. 1/4 COR. SEC. 31 T.106N.–R.11W. TO 1755' N. OF SE. COR. SEC. 28 T.106N.–R.11W. (LEGAL DESCRIPTION)

S.A.P. NO. 55–610–17

GROSS LENGTH	45,029.85	FEET	8.53	MILES
BRIDGE–LENGTH	0.00	FEET	0.00	MILES
EXCEPTIONS–LENGTH	0.00	FEET	0.00	MILES
NET LENGTH	45,029.85	FEET	8.53	MILES



MINN. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS AMENDED BY THE MAY 2, 1994, SUPPLEMENTAL SPECIFICATION SHALL GOVERN.

INDEX

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	ESTIMATE OF QUANTITIES & DETAIL SHEET
SHEET NO. 3	TABULATION SHEET
SHEET NO. 4–13	PLAN SHEETS (INFORMATION ONLY)

THIS PLAN CONTAINS 13 SHEETS.

STA 108+00 TO STA 184+17.67
CONCRETE OVERLAY 1982 UNDER SAP 55–610–12
SURFACED 1968 UNDER SAP 55–610–05
GRADED 1966 UNDER SAP 55–610–05

STA 184+17.67 TO STA 503+80
CONCRETE SURFACE 1982 UNDER SAP 55–610–12
GRADED 1977 UNDER SAP 55–610–08

STA 400+56.57 TO DOVER
CONCRETE OVERLAY 1982 UNDER SAP 55–610–13
SURFACED 1961 UNDER SAP 55–610–03
GRADED 1959 UNDER SAP 55–610–01

DESIGN DESIGNATION (OLMSTED CSAH 10)

ADT (Current Year)	= 968(2000)	Design Speed 50 MPH	
ADT (Future Year)	= 1,549(2020)	STA. 112+00 TO STA. 400+56.57	
DHV (Design Hr. Vol.)	=	Design Speed 45 MPH	
D (Directional Distr.)	=	STA. 400+56.57 TO STA. 460+00	
T (Heavy Commercial)	=	Based on STOPPING Sight Distance	
SOIL FACTOR	= 130	Height of eye 3.75 Height of object 0.5	
TON DESIGN	10	Design Speed not achieved at:	
LANE WIDTH	12'	STA. TO STA. MPH	
SHOULDER WIDTH	6'	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 1/13/00 REG. NO. 19917 ENGR. Kaye M Bierwirth

COUNTY OLMSTED

Approved 1/13 2000 Michael Thesken
OLMSTED COUNTY ENGINEER

Recommended for Approval ____ 20 ____
DISTRICT STATE AID ENGINEER

Recommended for Approval ____ 20 ____
STATE AID PLANS AND SPECS ENGINEER

Approved January 18 2000 Andy Schmidt
FOR STATE AID DIVISION

STATE AID PROJ. NO. 55–610–17
~~STATE PROJ. NO.~~

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	PARTICIPATING	TOTAL ESTIMATED QUANTITIES
2502.521	4" TP PIPE DRAIN	LIN FT	2688	2688
2502.541	4" PERF PE PIPE DRAIN	LIN FT	84042	84042
2502.601	4" PRECAST CONCRETE HEADWALL	EACH	168	168

QUANTITY NOTES

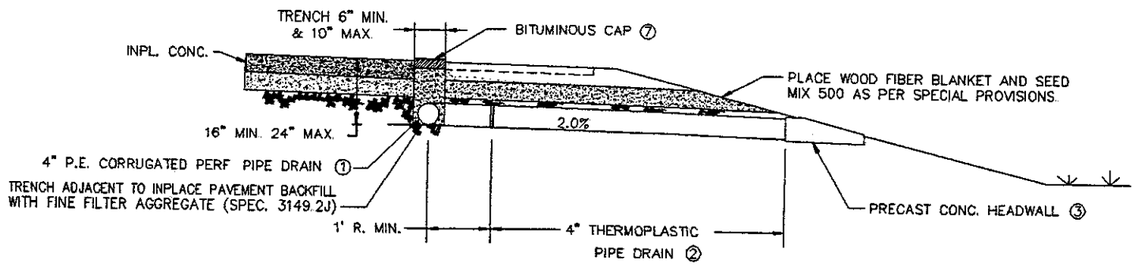
SEE TABULATION SHEET 3 FOR PERFORATED PIPE & HEADWALL LOCATIONS.

STANDARD PLATES

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

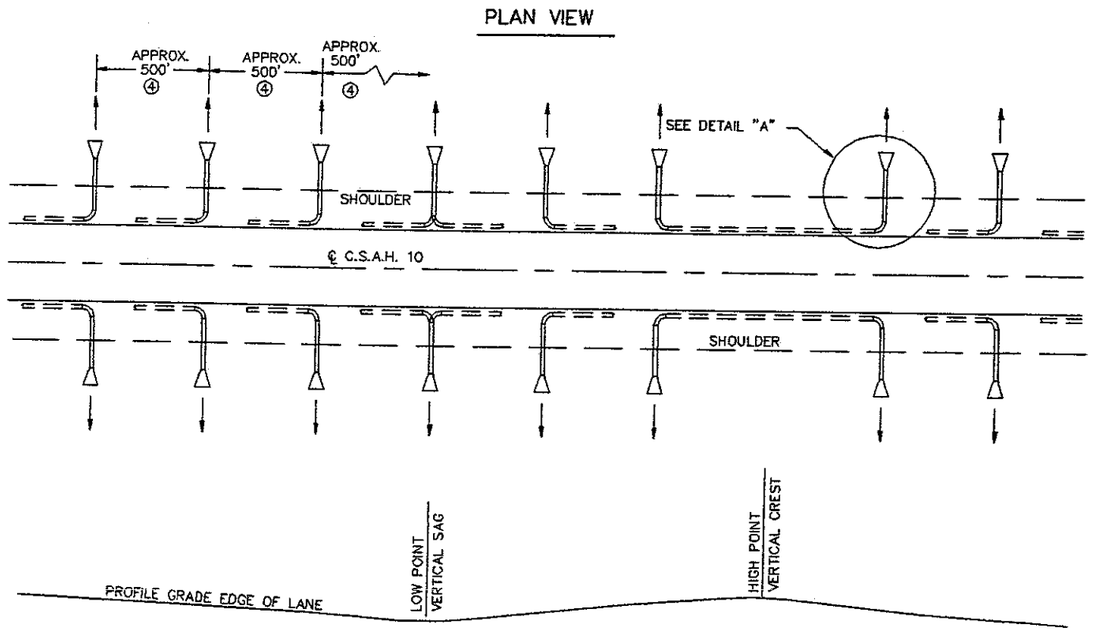
PLATE NO.	DESCRIPTION
-	NUMERICAL INDEX OF STANDARD PLATES
3131 B	PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS
8000 I	STANDARD BARRICADES

X-SECTION VIEW



EDGE DRAIN DETAILS AND CONSTRUCTION NOTES

PLAN VIEW

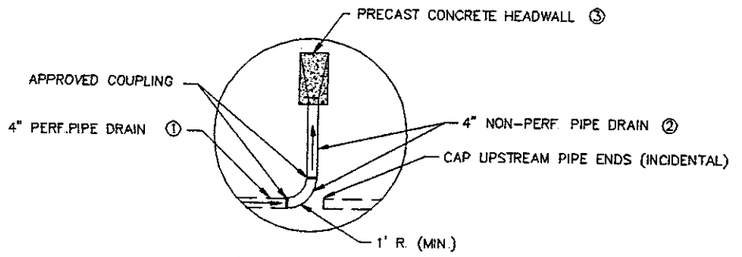


LEGEND

= = = 4" PERFORATED PIPE DRAIN

═══ 4" NON-PERFORATED PIPE DRAIN

▷ PRECAST CONCRETE HEADWALL



DETAIL "A"

CONSTRUCTION NOTES

① PAYMENT FOR 4" PERFORATED PIPE DRAIN SHALL BE FULL COMPENSATION FOR TRENCHING, FABRIC WRAPPED P.E. PIPE, INSTALLATION, FILTER AGGREGATE BACKFILL AND COMPACTION, BITUMINOUS OR AGGREGATE CAP, AND ALL OTHER ASSOCIATED WORK.

② PAYMENT FOR 4" NON-PERFORATED PIPE DRAIN SHALL BE FULL COMPENSATION FOR TRENCHING, FURNISHING AND PLACING PIPE AND CONNECTIONS, BACKFILL AND COMPACTION, AND ALL OTHER ASSOCIATED WORK.

③ PAYMENT FOR PRECAST CONCRETE HEADWALLS SHALL BE FULL COMPENSATION FOR PLACING HEADWALL, WOOD FIBER BLANKET AND SEED, AND ALL OTHER ASSOCIATED WORK.

④ IF AN OUTLET HAPPENS TO FALL WITHIN A CROSS-OVER OR DITCH-BLOCK INCREASE THE LENGTH OF THE PERFORATED PIPE TO A POINT WHERE AN OUTLET CAN BE SATISFACTORLY CONSTRUCTED AS DIRECTED BY THE ENGINEER.

⑤ EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.303.

⑥ NO EDGEDRAINS WILL BE PLACED ON ELEVATED SUPER SIDE AS DIRECTED BY ENGINEER.

⑦ WHERE THERE IS AN INPLACE BITUMINOUS SHOULDER THE TRENCHED HOLE SHALL BE FINISHED WITH A BITUMINOUS CAP HAVING THE SAME DEPTH AS THE BITUMINOUS SHOULDER AND COMPACTED TO 1 INCH ABOVE EXISTING PAVEMENT.

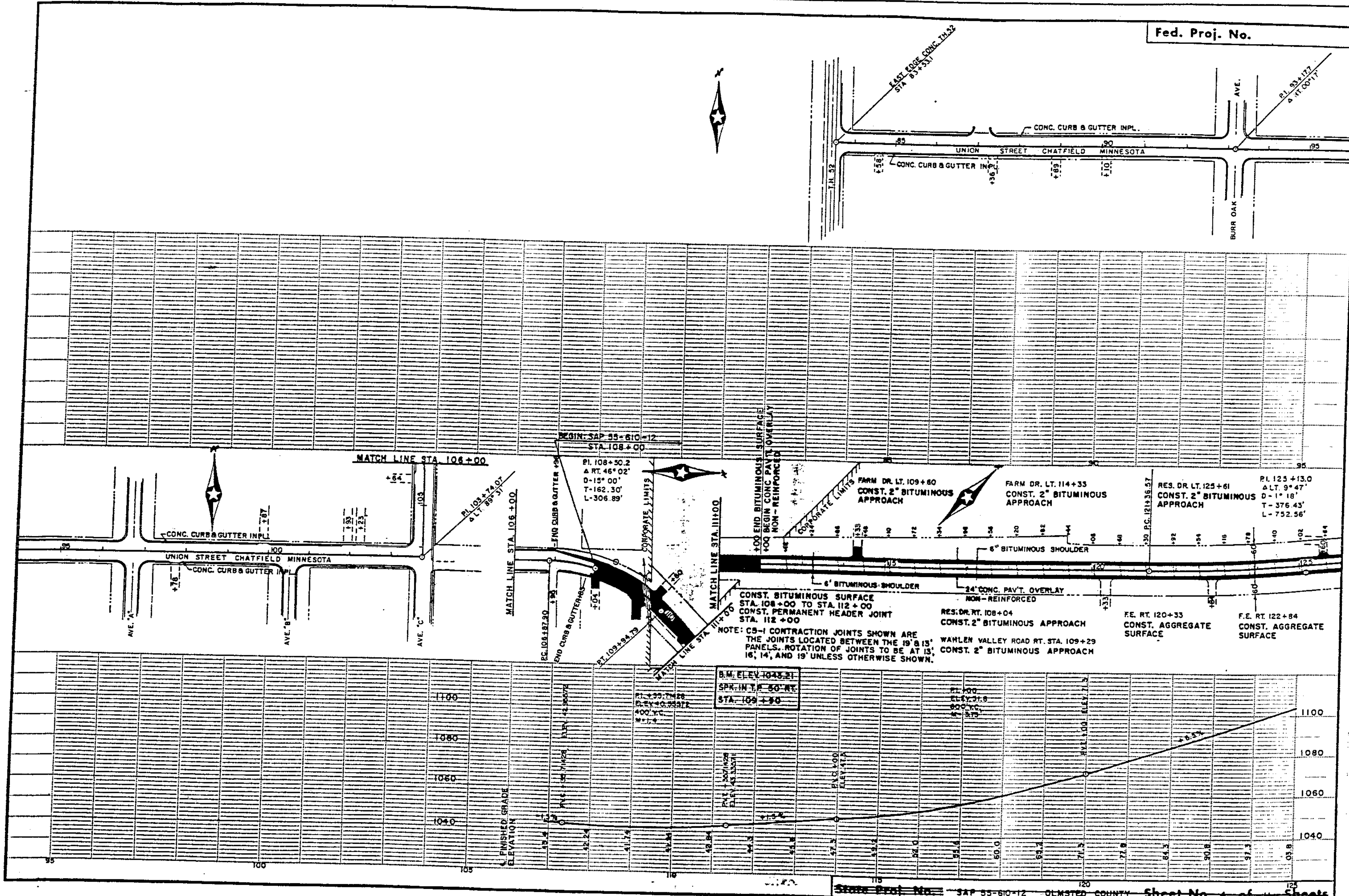
EDGE DRAIN TABULATIONS

English Stations	Location	Perf. Pipe (feet)	TP Pipe (feet)	Headwalls (each)	Headwall Stations
112+00 - 117+02	RT&LT	1004	32	2	112+00
117+02 - 121+36	RT	434	16	1	117+02
117+02 - 122+04	LT	502	16	1	117+02
122+04 - 127+06	LT	502	16	1	122+04
127+06 - 132+08	LT	502	16	1	127+06
128+89 - 133+74	RT	485	16	1	128+89
132+08 - 137+13	LT	505	16	1	132+08
133+74 - 138+59	RT	485	16	1	133+74
138+59 - 143+14	RT	455	16	1	138+59
143+14 - 148+23	RT	509	16	1	143+14
148+23 - 154+03	RT&LT	1160	64	4	148+23-154+03
154+03 - 158+12	LT	409	16	1	158+12
158+12 - 167+23	LT	911	16	1	162+13 LOW PT
168+17 - 173+04	RT&LT	974	32	2	168+17
173+04 - 181+91	RT&LT	1774	64	4	173+04-181+91
181+91 - 189+21	RT&LT	1460	32	2	184+36 LOW PT
189+21 - 194+06	RT&LT	970	32	2	189+21
194+06 - 199+01	RT&LT	990	32	2	194+06
199+01 - 203+96	RT&LT	990	32	2	199+01
203+96 - 208+91	RT&LT	990	32	2	203+96
208+91 - 213+86	RT&LT	990	32	2	208+91
213+86 - 224+13	RT&LT	1027	64	4	213+86-224+13
224+13 - 234+36	RT&LT	2046	32	2	229+52 LOW PT
234+36 - 239+20	RT&LT	968	32	2	234+36
239+20 - 244+04	RT&LT	968	32	2	239+20
244+04 - 248+88	RT&LT	968	32	2	244+04
248+88 - 253+72	RT&LT	968	32	2	248+88
253+72 - 263+56	RT&LT	984	64	4	253+72-263+56
263+56 - 268+11	RT&LT	910	32	2	268+11
268+11 - 277+38	RT&LT	1854	32	2	272+66 LOW PT
277+38 - 282+10	RT&LT	944	32	2	277+38
282+10 - 286+82	RT&LT	944	32	2	282+10
286+82 - 291+54	RT&LT	944	32	2	286+82
291+54 - 296+26	RT&LT	944	32	2	291+54
296+26 - 300+98	RT&LT	944	32	2	296+26
300+98 - 310+80	RT&LT	1964	64	4	300+98-310+80
310+80 - 315+95	RT&LT	1030	32	2	315+95
315+95 - 324+12	RT&LT	1634	32	2	319+31 LOW PT
324+12 - 328+90	RT&LT	956	32	2	324+12
328+90 - 333+72	RT&LT	964	32	2	328+90
333+72 - 338+54	RT&LT	964	32	2	333+72
338+54 - 348+78	RT&LT	2048	64	4	338+54-348+78
348+78 - 357+20	RT&LT	1684	32	2	354+16 LOW PT
357+20 - 362+13	RT&LT	986	32	2	357+20
362+13 - 367+06	RT&LT	986	32	2	362+13
	SUBTOTALS	45630	1456	91	

English Stations	Location	Perf. Pipe (feet)	TP Pipe (feet)	Headwalls (each)	Headwall Stations
367+06 - 372+00	RT&LT	988	32	2	367+06
372+00 - 381+06	RT&LT	1812	64	4	372+00-381+06
381+06 - 385+20	RT&LT	828	32	2	385+20
385+20 - 392+90	RT&LT	1540	32	2	389+33 LOW PT
392+90 - 396+73	RT&LT	766	32	2	392+90
396+73 - 404+63	RT&LT	1580	64	4	396+73-404+63
404+63 - 408+70	RT&LT	814	32	2	408+70
408+70 - 412+77	RT&LT	814	32	2	412+77
412+77 - 419+81	RT	704	16	1	416+31 LOW PT
419+81 - 428+66	RT	885	32	2	419+81-428+66
425+76 - 428+66	LT	290	16	1	428+66
428+66 - 433+33	RT&LT	934	32	2	433+33
433+33 - 438+00	RT&LT	934	32	2	438+00
438+00 - 442+67	RT&LT	934	32	2	442+67
442+67 - 447+34	RT&LT	934	32	2	447+34
447+34 - 452+01	RT&LT	934	32	2	452+01
452+01 - 470+69	RT&LT	3736	32	2	456+69 LOW PT
			32	2	466+26 LOW PT
470+69 - 475+12	RT&LT	886	32	2	470+69
475+12 - 479+55	RT&LT	886	32	2	475+12
479+55 - 483+98	RT&LT	886	32	2	479+55
483+98 - 488+41	RT&LT	443	32	2	483+98
488+41 - 492+25	LT	384	16	1	488+41
492+25 - 496+09	LT	384	16	1	492+25
496+09 - 503+80	LT	771	32	2	496+09-503+80
501+23 - 503+80	RT	257	16	1	503+80
400+56 - 405+21	RT&LT	930	32	2	405+21
405+21 - 409+86	RT&LT	930	32	2	409+86
409+86 - 414+51	RT&LT	930	32	2	414+51
414+51 - 419+16	RT&LT	930	32	2	419+16
419+16 - 423+85	RT&LT	938	32	2	423+85
423+85 - 428+46	RT&LT	922	32	2	428+46
428+46 - 436+16	RT&LT	1540	32	2	433+11 LOW PT
436+16 - 443+35	RT&LT	1438	64	4	436+16-443+35
443+35 - 447+52	RT&LT	834	32	2	447+52
447+52 - 451+69	RT&LT	834	32	2	451+69
451+69 - 455+86	RT&LT	834	32	2	455+86
444+86 - 460+00	RT&LT	3028	32	2	460+00
	SUBTOTALS	38412	1232	77	
	TOTALS	84042	2688	168	

CERTIFIED BY Lance M Bremek PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 3 of 13 Sheets

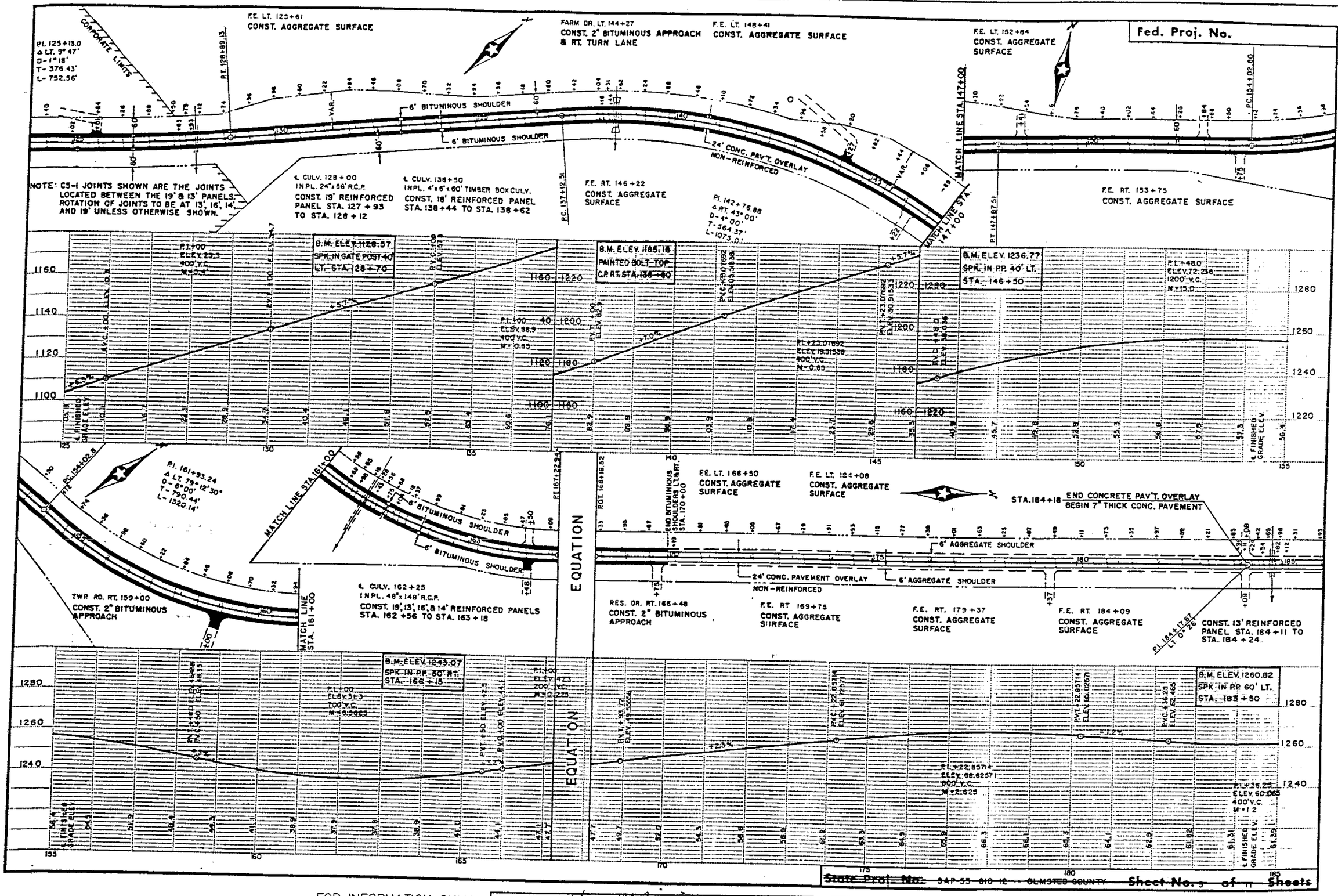


FOR INFORMATION ONLY

CERTIFIED BY Kaye M. Bieniek PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 4 of 13 Sheets

Fed. Proj. No.



State Proj. No. 042-55-610-12 OLMSTED COUNTY Sheet No. 5 of 11 Sheets

FOR INFORMATION ONLY

CERTIFIED BY Kyle M Brenner PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 5 of 13 Sheets

℄ CULV. 184+75
INPL. 24"x 60' R.C.P.
CONST. 13' REINFORCED PANEL.
STA. 184+69 TO STA. 184+82

FARM DR. LT. 189+00
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. LT. 205+02
CONST. AGGREGATE SURFACE

℄ CULV. 206+08
INPL. 24"x 64" R.C.P.
CONST. 13' REINFORCED PANEL.
STA. 206+01 TO STA. 206+14

F.E. LT. 211+86
CONST. AGGREGATE SURFACE

P.I. 184+17.64 LT. OF 26
INPL. 1/2" SQ. ROD

60' | 6' AGGREGATE SHOULDER | 60' | 24' CONCRETE PAV'T. | 6' AGGREGATE SHOULDER | 30'

P.I. 210+43.85
P.I. 210+43.85 LT. OF 210+45.85
L=R=0°07'30"

CONST. 13' REINFORCED PANEL
STA. 184+11 TO STA. 184+24

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19', & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

FARM DR. RT. 194+29
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

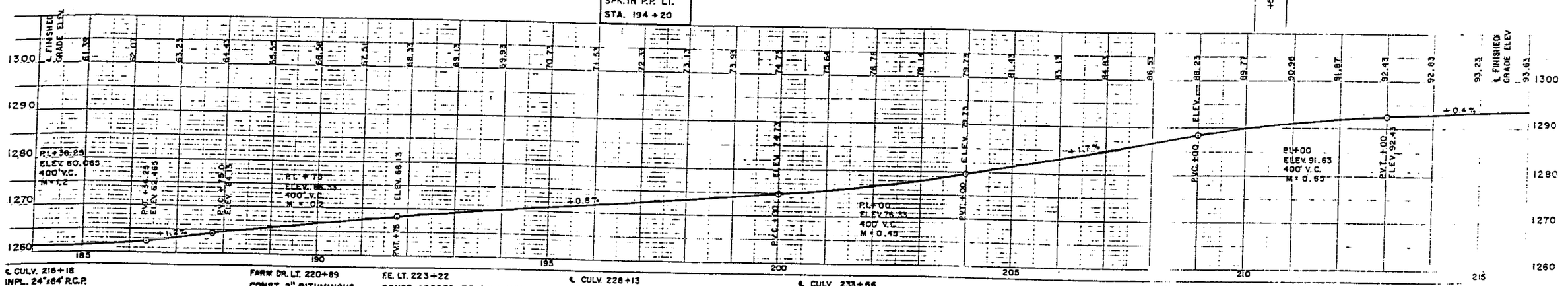
F.E. RT. 207+72
CONST. AGGREGATE SURFACE

FARM DR. 208+46
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

C.R. 110 RT. 210+55
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. RT. 211+07
CONST. AGGREGATE SURFACE

B.M. ELEV. 1267.61
SPK. IN P.P. LT.
STA. 194+20



℄ CULV. 216+18
INPL. 24"x64" R.C.P.
CONST. 19' REINFORCE PANEL
STA. 216+07 TO STA. 216+26

FARM DR. LT. 220+89
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. LT. 223+22
CONST. AGGREGATE SURFACE

℄ CULV. 228+13
INPL. 36"x 78' R.C.P.
SKEWED 30°
CONST. 14' & 16' REINFORCED PANELS
STA. 228+00 TO STA. 228+30

℄ CULV. 233+66
INPL. 36"x 64' R.C.P.
SKEWED 15°
CONST. 12' & 15' REINFORCED PANELS
STA. 233+55 TO STA. 233+82

P.I. 236+48.94 LT. OF 30
P.I. 236+48.94 LOOK 30° LT.

F.E. LT. 242+01
CONST. AGGREGATE SURFACE

℄ CULV. 242+10
INPL. 24"x 60' R.C.P.
CONST. 19' REINFORCED PANEL. STA. 242+02 TO STA. 242+21

F.E. LT. 243+50
CONST. AGGREGATE SURFACE

60' | 50' | 60' | 24' CONCRETE PAVEMENT | 6' AGG. SHLD. | 60'

FARM DR. RT. 218+79
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. RT. 220+96
CONST. AGGREGATE SURFACE

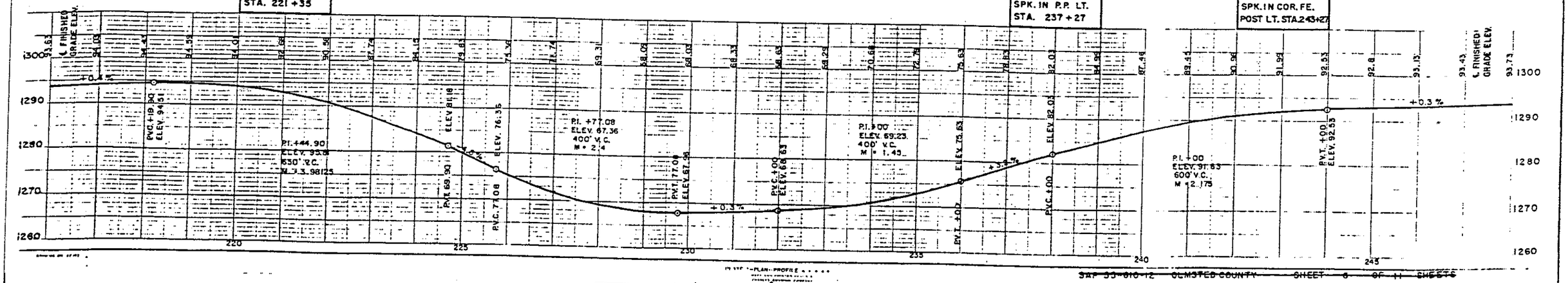
F.E. RT. 233+04
CONST. AGGREGATE SURFACE

F.E. RT. 245+57
CONST. AGGREGATE SURFACE

B.M. ELEV. 1293.77
SPK. IN P.P. LT.
STA. 221+35

B.M. ELEV. 1280.73
SPK. IN P.P. LT.
STA. 237+27

B.M. ELEV. 1291.45
SPK. IN COR. FE.
POST LT. STA. 243+27



FOR INFORMATION ONLY

CERTIFIED BY Kay M Brunich PROFESSIONAL ENGINEER REG. NO. 19917 1/13 20 00

State Aid Proj. No. 55-610-17 Sheet No. 6 of 13 Sheets

SAP 55-610-12 OLMSTED COUNTY SHEET 6 OF 11 SHEETS

FARM DR. LT. 248+21
CONST. 2" BITUMINOUS APPROACH & RT TURN LANE.

F.E. LT. 250+77
CONST. AGGREGATE SURFACE

℄ CULV. 250+98
INPL. 30"x64' R.C.P.
CONST. 13' REINFORCED PANEL.
STA. 250+91 TO STA 251+04.

F.E. LT. 264+50
CONST. AGGREGATE SURFACE

℄ CULV. 272+45
INPL. 24"x270' CMP
SKEWED 13° 01'
CONST. 13', 16', 14', 19', 13' & 15' REINFORCED PANELS STA. 271+99 TO STA. 272+89

FARM DR LT. 278+42
CONST. 2" BITUMINOUS APPROACH

CONST. 8624 CONC. CURB & GUTTER LEFT STA. 278+54 TO STA. 280+00 & 2" BITUMINOUS SHOULDER LEFT STA. 278+00 TO STA. 280+00.
BACKFILL CURB 62 CU.YDS. TOPSOIL BORROW (LV) 196 SQ YDS 500

F.E. DOUBLE RT. 249+69
CONST. AGGREGATE SURFACE

NOTE: CS-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

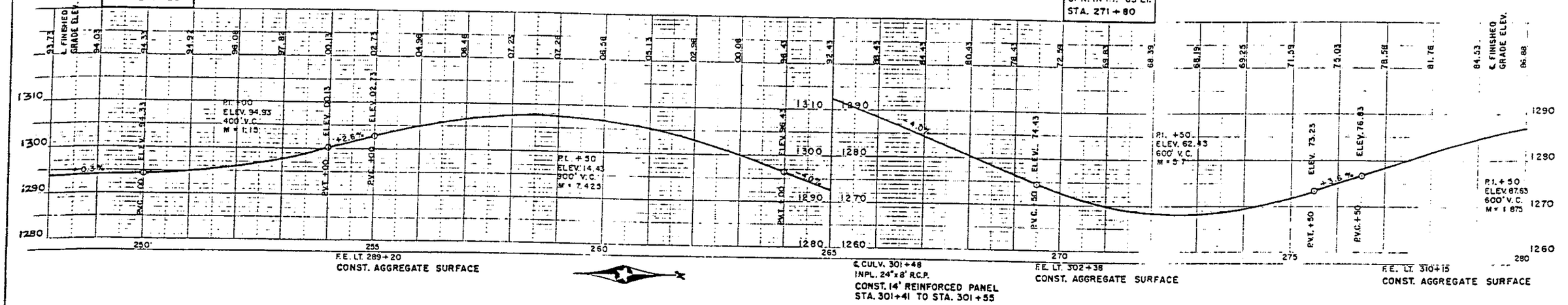
TWP. RD. RT. 292+15
CONST. 2" BITUMINOUS APPROACH & RT TURN LANE.

6' AGGREGATE SHOULDER
24' CONCRETE PAVEMENT NON-REINFORCED
6' AGG. SHLD.

FARM DR. RT. 278+14
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

B.M. ELEV. 1295.82
SPK. IN P.P. 60' LT.
STA. 249+30

B.M. ELEV. 1264.48
SPK. IN P.P. 65' LT.
STA. 271+80

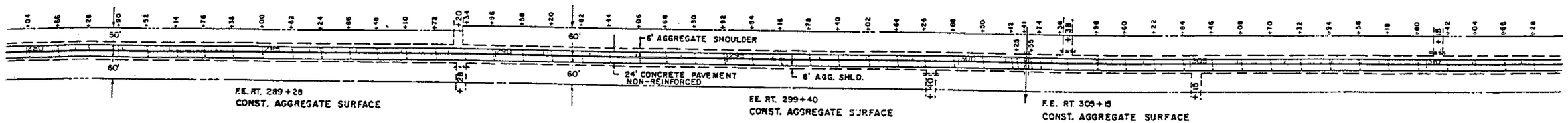


F.E. LT. 289+20
CONST. AGGREGATE SURFACE

℄ CULV. 301+48
INPL. 24"x8' R.C.P.
CONST. 14' REINFORCED PANEL
STA. 301+41 TO STA. 301+55

F.E. LT. 302+38
CONST. AGGREGATE SURFACE

F.E. LT. 310+15
CONST. AGGREGATE SURFACE



F.E. RT. 289+28
CONST. AGGREGATE SURFACE

F.E. RT. 299+40
CONST. AGGREGATE SURFACE

F.E. RT. 305+15
CONST. AGGREGATE SURFACE

B.M. ELEV. 1304.60
SPK. IN P.P. LT.
STA. 294+55

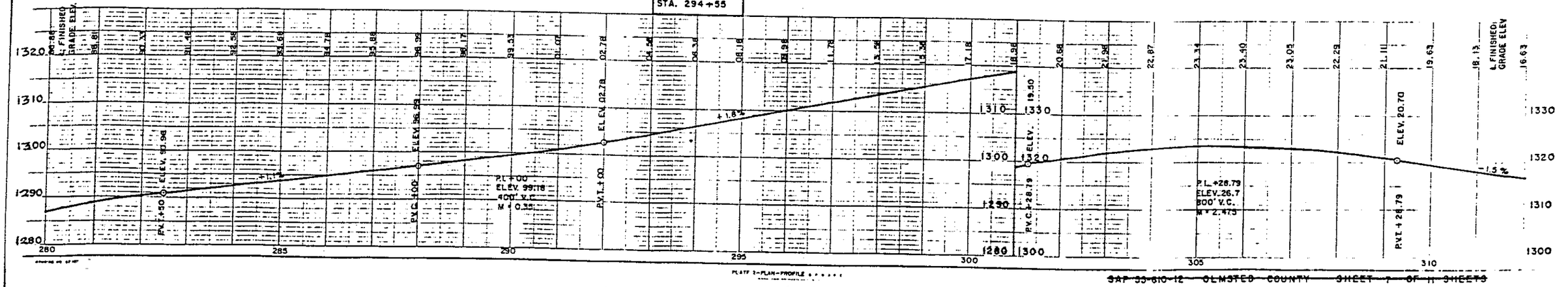


PLATE 3-PLAN-PROFILE

FOR INFORMATION ONLY

CERTIFIED BY Dave M Brinnich PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 7 of 13 Sheets

~~SAP 55-610-12 OLMSTED COUNTY SHEET 7 OF 11 SHEETS~~

TWP. RD. LT. 315+70
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

℄ CULV. 318+63
INPL. 42"x78" R.C.P.
CONST 13' & 16' REINFORCED PANELS STA. 318+48 TO STA. 318+77.

℄ CULV. 323+12
INPL. 36"x90" R.C.P.
SKEWED 30°
CONST. 16' & 14' REINFORCED PANELS STA. 322+95 TO STA. 323+25.

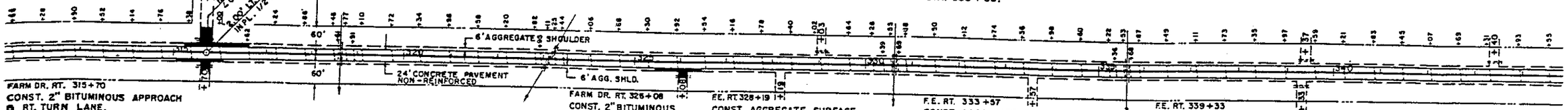
F.E. LT. 329+03
CONST. AGGREGATE SURFACE

℄ CULV. 330+65
INPL. 30"x82" R.C.P.
CONST. 14' & 19' REINFORCED PANELS STA. 330+55 TO STA. 330+80.

℄ CULV. 335+61
INPL. 30"x76" R.C.P.
CONST. 15' REINFORCED PANEL STA. 335+53 TO STA. 335+68.

F.E. LT. 339+37
CONST. AGGREGATE SURFACE

F.E. LT. 343+40
CONST. AGGREGATE SURFACE



FARM DR. RT. 315+70
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

NOTE: C5-1 JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

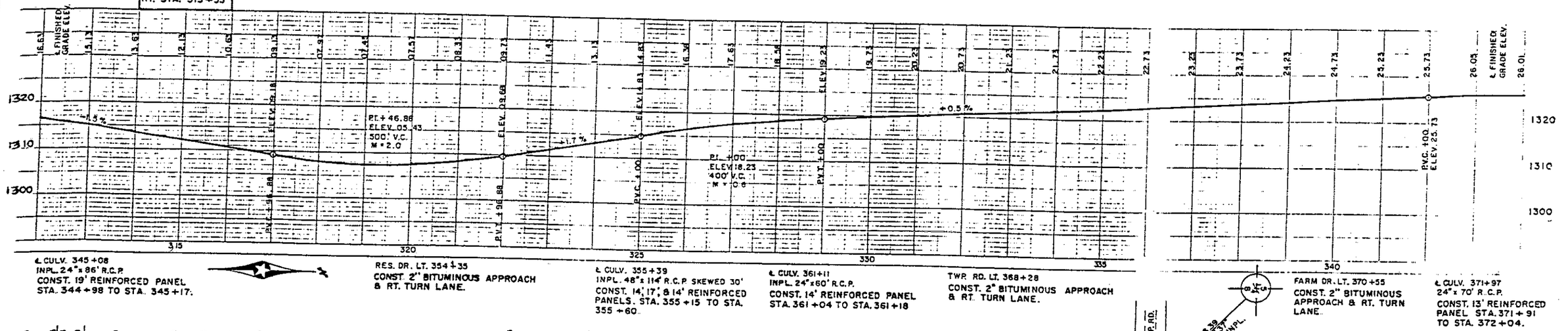
FARM DR. RT. 326+08
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

F.E. RT. 328+19
CONST. AGGREGATE SURFACE

F.E. RT. 333+97
CONST AGGREGATE SURFACE

F.E. RT. 339+33
CONST. AGGREGATE SURFACE

B.M. ELEV. 1311.72
SPK. IN FE. POST 70
RT. STA. 315+33



℄ CULV. 345+08
INPL. 24"x 86" R.C.P.
CONST. 19' REINFORCED PANEL STA. 344+98 TO STA. 345+17.

RES. DR. LT. 354+35
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

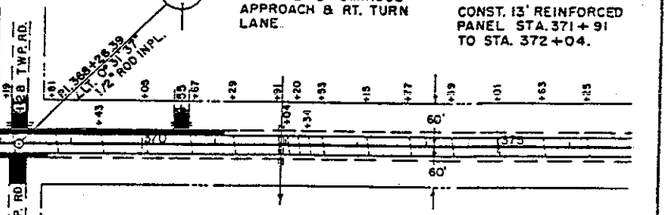
℄ CULV. 355+39
INPL. 48"x 114" R.C.P. SKEWED 30°
CONST. 14', 17', & 14' REINFORCED PANELS. STA. 355+15 TO STA. 355+60.

℄ CULV. 361+11
INPL. 24"x60" R.C.P.
CONST. 14' REINFORCED PANEL STA. 361+04 TO STA. 361+18

TWP. RD. LT. 368+28
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

FARM DR. LT. 370+55
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

℄ CULV. 371+97
24"x 70' R.C.P.
CONST. 13' REINFORCED PANEL STA. 371+91 TO STA. 372+04.



F.E. RT. 347+38
CONST. AGGREGATE SURFACE

CONST. 8624 CONC. CURB & GUTTER RT. STA. 357+50 TO STA. 360+90 & 2" BITUMINOUS SHOULDER FROM STA. 357+50 TO STA. 360+90
BACKFILL CURB 134 CU. YDS. TOPSOIL BORROW (LV) 430 SQ. YDS. SOD.
CONST. BITUMINOUS SPILLWAY RT. STA. 357+50
BITUMINOUS QUANTITY INCLUDED IN SHOULDER MIXTURE

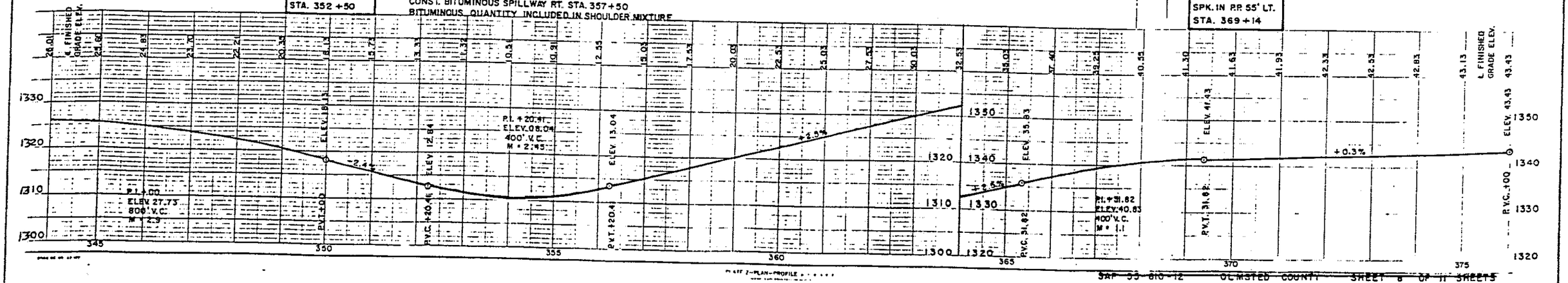
RES. DR. RT. 358+56
CONST. 2" BITUMINOUS APPROACH

F.E. RT. 380+99
CONST. AGGREGATE SURFACE

TWP. RD. RT. 368+28
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

B.M. ELEV. 1314.00
SPK. IN P.P. 55' LT.
STA. 352+50

B.M. ELEV. 1343.33
SPK. IN P.P. 55' LT.
STA. 369+14



FOR INFORMATION ONLY

CERTIFIED BY Kay M Brenner PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 8 of 13 Sheets

SAP 55-610-12 OLMSTED COUNTY SHEET 8 OF 13 SHEETS

Fed. Proj. No.

DOUBLE F.E. LT. 377+91
CONST. AGGREGATE SURFACE

℄ CULV. 386+96
INPL. 30"x 62' R.C.P.
CONST. 16' REINFORCED PANELS
STA. 386+88 TO STA. 387+04.

℄ CULV. 392+62
INPL. 30"x 62' R.C.P.
CONST. 16' & 14' REINFORCED
PANELS STA. 392+46
TO STA. 392+76

F.E. LT. 394+60
CONST. AGGREGATE SURFACE

F.E. LT. 401+20
CONST. AGGREGATE
SURFACE

F.E. RT. 381+60
CONST. AGGREGATE SURFACE

6' AGGREGATE SHOULDER

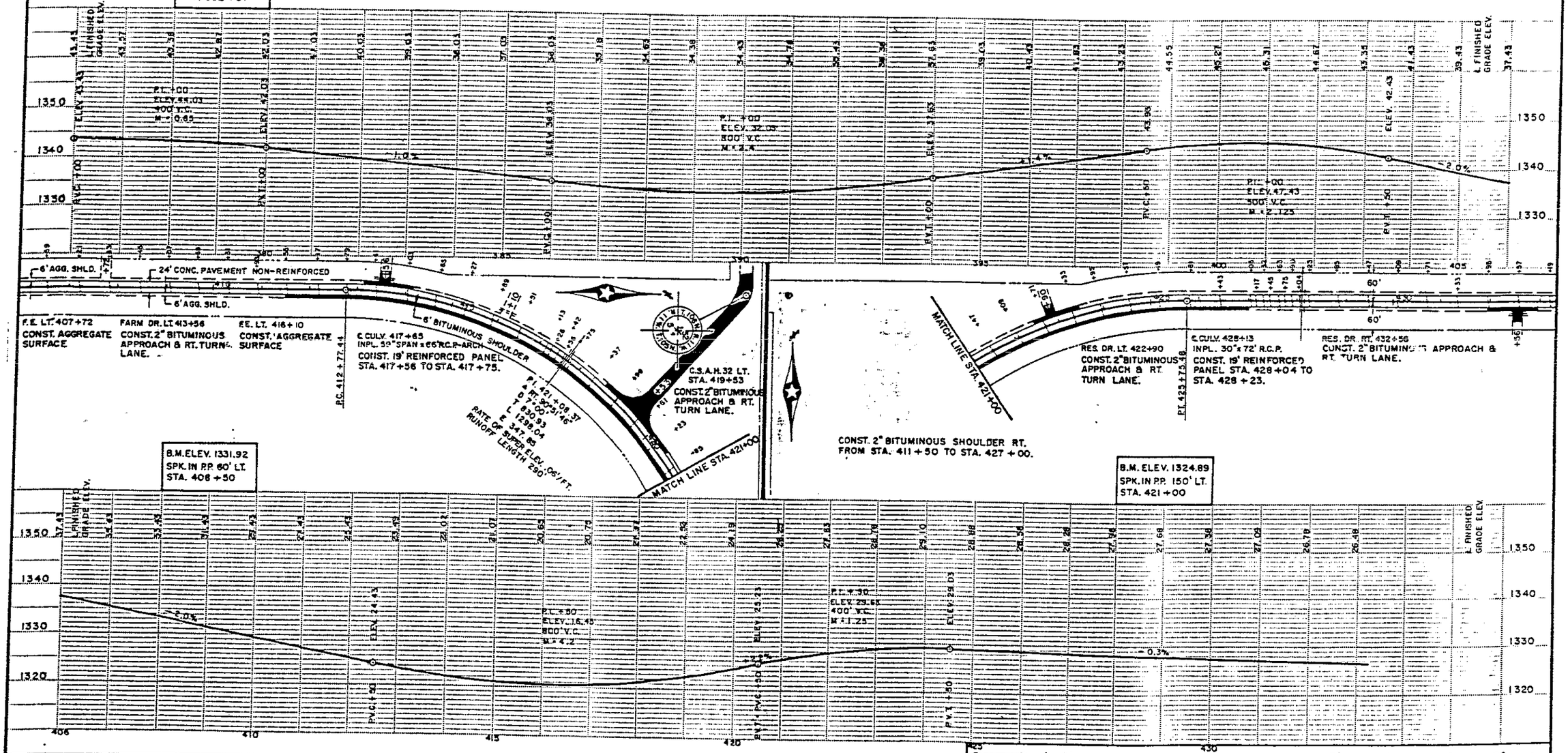
24' CONCRETE PAVEMENT
NON-REINFORCED

6' AGG. SHLD.

DOUBLE F.E. RT. 394+71
CONST. AGGREGATE SURFACE

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

B.M. ELEV. 1038.85
SPK. IN P.P. 63' LT.
STA. 382+37



~~STATE PROJ. NO. 041-58-010 OLMSTED COUNTY~~ ~~Sheet No. 9 of 11 Sheets~~

FOR INFORMATION ONLY

CERTIFIED BY Lance M. Brenneis PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 9 of 13 Sheets

Fed. Proj. No.

T.W.P. RD. LT. 443+81
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

℄ CULV. 446+75
INPL. 24"±62' R.C.P.
CONST. 19' REINFORCED PANEL STA. 445+64 TO STA. 445+83.

F.E. LT. 448+90
CONST. AGGREGATE SURFACE

FARM DR. LT. 454+30
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

℄ CULV. 455+68
INPL. 72"±72' R.C.P
SKEWED 15°
CONST. 13', 16', & 14' REINFORCED PANEL STA. 455+51 TO STA. 455+94.

F.E. LT. 458+00
CONST. AGGREGATE SURFACE

F.E. LT. 462+25
CONST. AGGREGATE SURFACE

6' AGGREGATE SHOULDER
24' CONCRETE PAVEMENT NON-REINFORCED
6' AGGREGATE SHOULDER
60'

F.E. RT 452+65
CONST. AGGREGATE SURFACE

F.E. RT. 453+75
CONST. AGGREGATE SURFACE

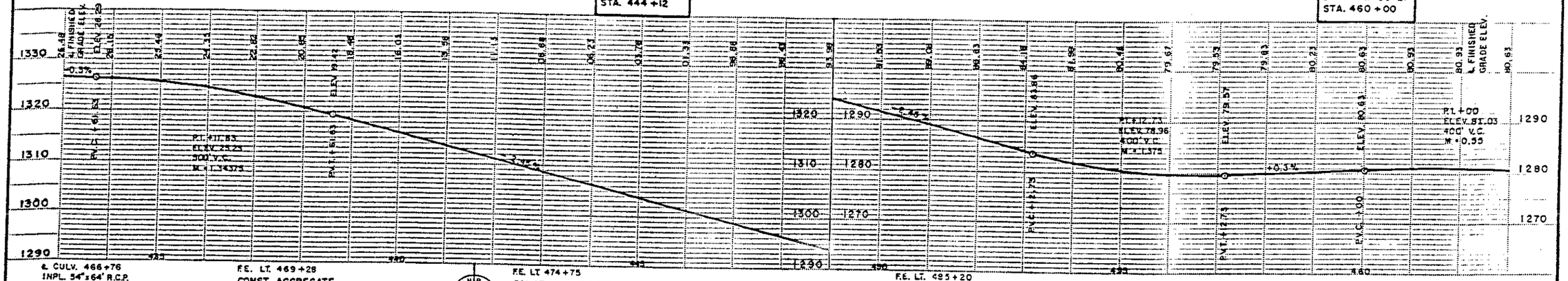
F.E. RT. 457+06
CONST. AGGREGATE SURFACE

FARM DR. RT. 460+05
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

NOTE: CS-I. CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

B.M. ELEV. 1303.03
SPK. IN P.P. 50' LT.
STA. 444+12

B.M. ELEV. 1282.44
SPK IN P.P. 58' LT
STA. 460+00



℄ CULV. 466+76
INPL. 54"±64' R.C.P.
CONST. 12' & 15' REINFORCED PANELS. STA. 466+61 TO STA. 466+88.

F.E. LT. 469+28
CONST. AGGREGATE SURFACE

F.E. LT 474+75
CONST. AGGREGATE SURFACE

F.E. LT. 485+20
CONST. AGGREGATE SURFACE

CONST. 2" BITUMINOUS SHOULDER STA. 487+00 TO STA. 502+60.

MATCH LINE STA. 488+00

6' AGGREGATE SHOULDER
6' AGGREGATE SHOULDER
24' CONC. PAVEMENT NON-REINFORCED
60'

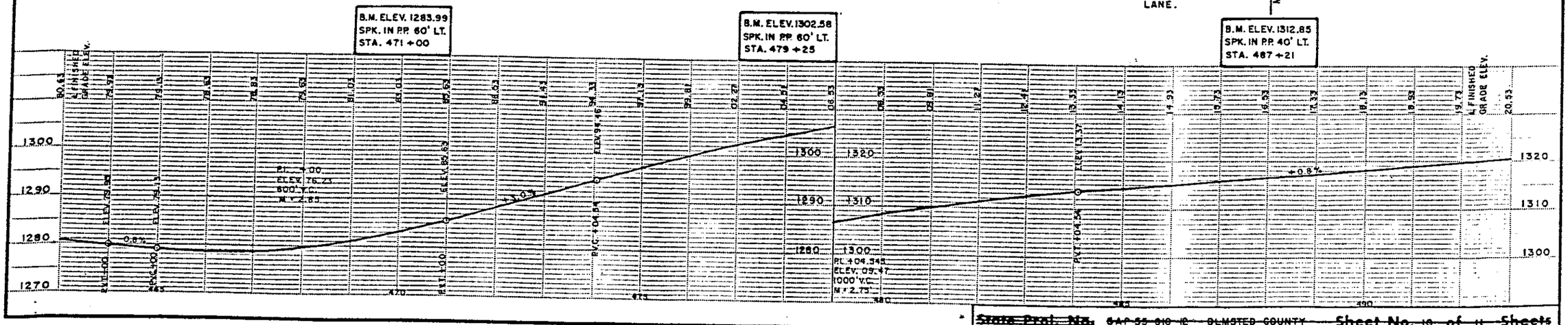
F.E. RT. 485+20
CONST. AGGREGATE SURFACE

FARM DR RT. 487+15
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

B.M. ELEV. 1283.99
SPK. IN P.P. 60' LT.
STA. 471+00

B.M. ELEV. 1302.58
SPK. IN P.P. 60' LT.
STA. 479+25

B.M. ELEV. 1312.85
SPK. IN P.P. 40' LT.
STA. 487+21



State Proj. No. 6AP-55-610-12 OLMSTED COUNTY Sheet No. 10 of 11 Sheets

FOR INFORMATION ONLY

CERTIFIED BY Kaye M Brenneh PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 10 of 13 Sheets

Fed. Proj. No.

C.S.A.H. 30 494+98
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE.

P.C. 488+41.64

PI. 496+55.39
Δ LT. 89°39'56"
D 7° 00'
T 813.75
L 1280.94

F.E. LT. 499+55
CONST. AGGREGATE SURFACE

PT. 501+22.58

℄ CULV. 503+82
INPL. 24"x 78' C.S.P.
CONST. 14.5' REINFORCED PANEL & 30' TEMPORARY HEADER JOINT STA. 503+63 TO STA. 503+80.

STA. 503+80.00
P.O.T. 503+80.0
P.O.T. 400+56.57
END CONCRETE PAVEMENT
BEGIN BITUMINOUS SURFACE

6' BITUMINOUS SHOULDER

24' CONCRETE PAVEMENT NON-REINFORCED

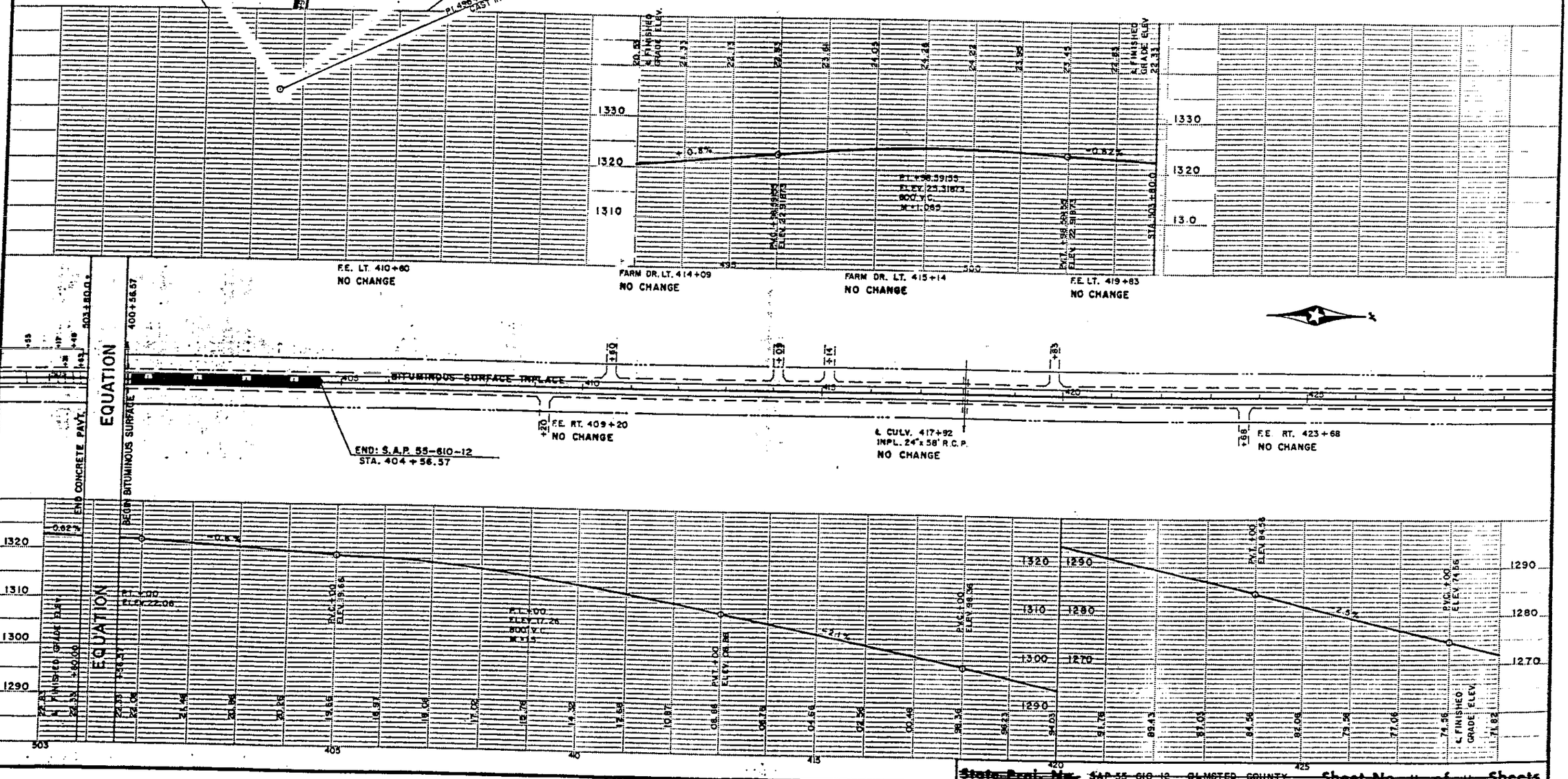
℄ CULV. 489+73
INPL. 30"x 70' R.C.P.
CONST. 16' REINFORCED PANEL STA. 489+66 TO STA. 489+82

6' AGGREGATE SHOULDER

F.E. RT. 499+55
CONST. AGGREGATE SURFACE

T.106 N.
R.14 W.
S.3

PI 496+55.39 Δ LT 89°39'56"
CAST IRON MONUMENT



FOR INFORMATION ONLY

CERTIFIED BY Kevin M Kiemish PROFESSIONAL ENGINEER REG. NO. 19917 1/13 2000

State Aid Proj. No. 55-610-17 Sheet No. 11 of 13 Sheets

~~State Proj. No.~~ ~~SAP 55-610-12~~ ~~OLMSTED COUNTY~~ Sheet No. 11 of 11 Sheets

Fed. Proj. No.

℄ CULV. 503+82
INPL. 24"x 78' C.S.P

CONST. 17' REINFORCED PANEL STA 503+77.5 TO STA. 400+71

F.E. LT 410+60
CONST. AGGREGATE SURFACE

FARM DR LT 414+09
CONST 2" BITUMINOUS APPROACH & RT TURN LANE.

FARM DR LT 415+14
CONST. 2" BITUMINOUS APPROACH & RT. TURN LANE

F E. LT 419+83
CONST. AGGREGATE SURFACE

EQUATION
400+56.57 = 503+80.0*

4' AGGREGATE SHOULDER
4' AGGREGATE SHOULDER
24' CONC. PAV'T. OVERLAY NON-REINFORCED

BEGIN SAP 55-610-13
STA 400+56 57

F.E. RT 409+20
CONST. AGGREGATE SURFACE

℄ CULV. 417+92
INPL. 24"x 58' RCP

CONST. 19' REINFORCED PANEL STA. 417+81 TO STA. 418+00

F.E. RT 423+68
CONST AGGREGATE SURFACE

B.M. ELEV 1319.94
SPK. IN P.P. 50' LT.
STA. 404+65

B.M. ELEV. 1296.72
SPK. IN P.P. 50' LT.
STA. 418+45

P.I. +00
ELEV. 22.06

P.I. +00
ELEV. 17.26
800' V.C.
M = 1.5

P.V.C. +00
ELEV. 19.56

P.V.T. +00
ELEV. 08.86

P.V.C. +00
ELEV. 98.36

P.V.T. +00
ELEV. 84.56

P.V.C. +00
ELEV. 74.56

-0.82%
-0.8%
-2.1%
-2.5%

L FINISHED GRADE ELEV.

~~State Proj. No.~~ ~~SAP 55 610 13 OLMSTED COUNTY~~ **Sheet No.** ~~4~~ **of** ~~5~~ **Sheets**

FOR INFORMATION ONLY

CERTIFIED BY Lance M Bjerneth REG. NO. 19917 1/13 2000
PROFESSIONAL ENGINEER

State Aid Proj. No. 55-610-17 Sheet No. 12 of 13 Sheets

Fed. Proj. No.

F.E. LT 438+93
CONST AGGREGATE SURFACE

CR. 129 LT 442+45
CONST 2" BITUMINOUS APPROACH
& RIGHT TURN LANE

F.E. LT. 443+58
CONST AGGREGATE SURFACE

F.E. LT. 455+35
CONST AGGREGATE SURFACE

4' AGGREGATE SHOULDER

24' CONC. PAV'T. OVERLAY
NON-REINFORCED

4' AGGREGATE SHOULDER

NOTE: C5-1 CONTRACTION JOINTS SHOWN ARE THE JOINTS LOCATED BETWEEN THE 19' & 13' PANELS. ROTATION OF JOINTS TO BE AT 13', 16', 14', AND 19' UNLESS OTHERWISE SHOWN.

℄ CULV. 432+63
INPL. 36"x48" R.C.P.
CONST. 15' REINFORCED
PANEL STA. 432+56 TO STA. 432+71

F.E. RT. 436+84
CONST. AGGREGATE SURFACE

C.S.A.H. 29 RT. 442+45
CONST. 2" BITUMINOUS
APPROACH & RT TURN LANE

F.E. RT. 449+00
CONST AGGREGATE SURFACE

FARM DR. RT. 454+36
CONST 2" BITUMINOUS
APPROACH & RT. TURN LANE

B.M. ELEV. 1268.72
SPK. IN P.P. 50' LT.
STA. 437+75

P.I. +00
ELEV. 67.06
600' V.C.
M = 2.205

P.I. +00
ELEV. 71.46
600' V.C.
M = 1.58

P.I. +00
ELEV. 66.06

-1.8%

P.I. +92.7?.??
ELEV. 42.??(??CI)
800' V.C.
M = 3.0

P.I. +92.33333
ELEV. 49.59601

STA. 460+00 END CONC. PAV'T. OVERLAY
BEGIN BIT. OVERLAY

CONST. 2" MAX. BIT. OVERLAY
STA. 463+50 TO 472+00

CONST. 2" T06" VARIABLE
THICKNESS BIT. OVERLAY
STA. 460+00 TO 463+50.

E. B. LANE
W. B. LANE

4' AGGREGATE SHLD'S.
24' CONC. PAV'T. OVERLAY
NON-REINFORCED

F. ENT. RT. 461+13
CONST. AGGREGATE SURFACE

8' BITUMINOUS SHLD.
BITUMINOUS SURFACE
9' BITUMINOUS SHLD.

END: SAP 55-610-13
STA. 472+00

P.I. 468+79.13
Δ LT 00°-01'-30"

FARM ENT. LT. 475+13
NO CHANGE

F. ENT. LT. 478+76
NO CHANGE

℄ CULV. 484+17
INPL W9'x6'x39' CONC.
BOX CULV.
SKEWED 30°
NO CHANGE

F. ENT. LT. 487+77
NO CHANGE

INPLACE

FARM ENT. RT 480+56
NO CHANGE

F.E. RT. 485+08
NO CHANGE

B.M. ELEV. 1232.41
SPK. IN P.P. 50' LT.
STA. 459+38

P.I. +92.33333
ELEV. 23.09802

P.I. +97.09677
ELEV. 04.89410

P.I. +97.09677
ELEV. 96.98920
300' V.C.
M = 1.7437?

P.I. +98.20689
ELEV. 96.14570

P.I. +98.20689
ELEV. 95.32070
300' V.C.
M = 0.5437?

B.M. ELEV. 1194.90
SPK. IN P.P. 50' LT.
STA. 474+68

P.I. +00
ELEV. 79.06
800' V.C.
M = 3.4

-0.15%

-1.8%

State Proj. No. ~~SAP 55-610-13~~ OLMSTED COUNTY Sheet No. ~~5~~ of ~~5~~ Sheets

FOR INFORMATION ONLY

CERTIFIED BY Gary M Brenner PROFESSIONAL ENGINEER REG. NO 19917 1/13 2006

State Aid Proj. No. 55-610-17 Sheet No. 13 of 13 Sheets