MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE, BRIDGE REPLACEMENT BR. NO. 6358 AND BR. NO. 8572

LOCATED ON C.S.A.H. 2 **BETWEEN** C.S.A.H. 11 AND T.H. 42 APPROX. 4.0 MILES N.E. OF ROCHESTER **(GEOGRAPHIC DESCRIPTION)**

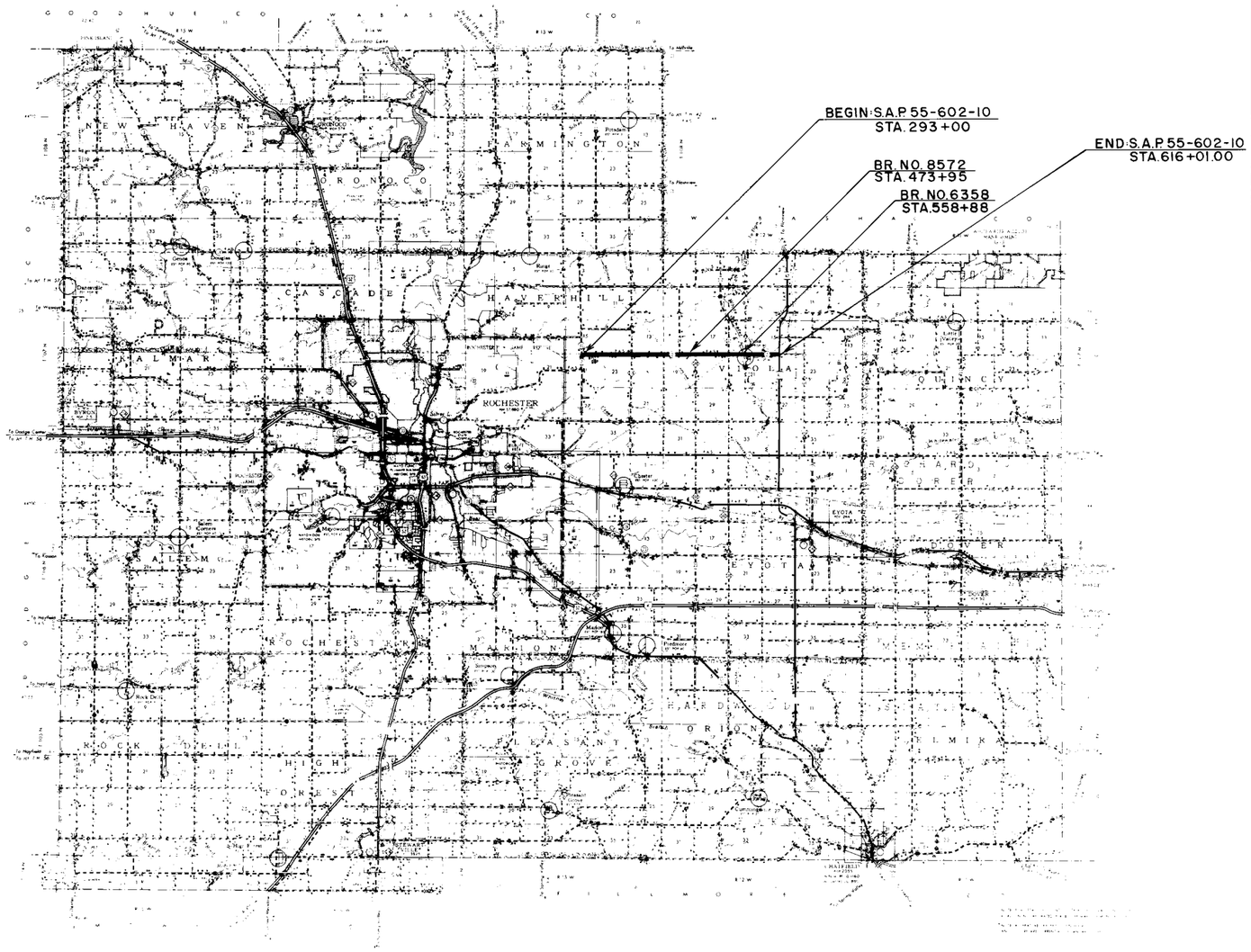
FROM 1366.5' S. of N1/4 COR. SEC. 22 T107N-R13W **TO** 48.0' W. of N1/4 COR. SEC. 22 T107N-R13W **(LEGAL DESCRIPTION)**

STATE PROJ. NO. .....

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

~~STATE PROJ. NO.~~ S.A.P. 55-602-10

GROSS LENGTH	32,301.00	FEET	6.118 MILES
BRIDGES-LENGTH	0	FEET	0 MILES
EXCEPTIONS-LENGTH	0	FEET	0 MILES
NET LENGTH	32,301.00	FEET	6.118 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
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)
ADDEN 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
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE

SCALES

PLAN 0 100'
PROFILE 0 100' HORZ. 0 10' VERT.
INDEX MAP 0 10560
CROSS SECTIONS 0 10'

MINN. PROJ. NO. .....

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

INDEX

SHEET NO. 1		TITLE SHEET & LAYOUT MAP
" " 2		ESTIMATE OF QUANTITIES
" " 3		TYPICAL SECTIONS
" " 4-15		PLAN & PROFILE SHEETS
" " 16-115		CROSS SECTION SHEETS

DESIGN DESIGNATION

R .....
ΣN18(20)
ADT (Current Year) = 858 (1986)
ADT (Future Year) = 1544 (2006)
DHV (Design Hr. Vol.) = ...
D (Directional Distr.) = ... %
T (Heavy Commercial) = 8.2 %
SOIL FACTOR 130 %
9 TON DESIGN
Design Speed 50 MPH
Based on STOPPING Sight Distance
Height of eye 3.5 Height of object 0.5
Design Speed not achieved at:
STA. 520+00 TO STA. 541+00 MPH 45
STA. 558+00 TO STA. 579+00 MPH 40
STA. 612+00 TO STA. 616+01 MPH 40

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 5/7/86 REG. NO. 17397 ENGR. M. L. [illegible]

COUNTY Olmsted

Recommended for Approval ..... 19 ....
DISTRICT STATE AID ENGINEER

Recommended for Approval Julie Skallman 6/2 19 86
STATE AID PLANS AND SPECS ENGINEER

Approved 6/3 19 86 Lawrence M. Gay
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

STATE AID PROJ. NO. 55-602-10
~~STATE PROJ. NO.~~ OLMSTED COUNTY C.S.A.H. 2 **SHEET NO.** 1 **OF** 115 **SHEETS**

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT			MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM				1	1
	2101.502	CLEARING	TREE				357	357
	2101.507	GRUBBING	TREE				381	381
	2104.501	REMOVE PIPE CULVERT	LIN. FT.				3216	3216
	2104.501	REMOVE TILE DRAIN	LIN. FT.				54	54
①	2104.501	REMOVE FENCE	LIN. FT.				6400	6400
②	2104.509	REMOVE CONCRETE BOX CULVERT	EACH				7	7
③	2104.509	REMOVE CONCRETE DAM	EACH				1	1
④	2105.515	UNCLASSIFIED EXCAVATION (P)	CU. YD.				220873	220873
	2105.523	COMMON BORROW (LV)	CU. YD.				17960	17960
	2105.535	SALVAGED TOPSOIL (EV) (P)	CU. YD.				18714	18714
⑤	2123.503	MOTOR GRADER	HOUR				6	6
⑤	2123.508	15 CU.YD. SCRAPER	HOUR				12	12
⑤	2123.509	DOZER	HOUR				6	6
⑥	2130.501	WATER	M-GAL.				304	304
⑦	2131.502	CALCIUM CHLORIDE SOLUTION	GAL.				59000	59000
⑧	2211.501	AGGREGATE BASE, CLASS 2	TON				32792	32792
	2451.507	GRANULAR BEDDING (CV)	CU.YD.				235	235
	2501.511	18" C.S. PIPE CULVERT	LIN. FT.				1936	1936
	2501.511	24" C.S. PIPE CULVERT	LIN. FT.				746	746
	2501.511	30" C.S. PIPE CULVERT	LIN. FT.				148	148
	2501.511	24" R.C. PIPE CULVERT, CLASS 2	LIN. FT.				150	150
	2501.511	24" R.C. PIPE CULVERT, CLASS 3	LIN. FT.				68	68
	2501.511	30" R.C. PIPE CULVERT, CLASS 2	LIN. FT.				62	62
	2501.511	30" R.C. PIPE CULVERT, CLASS 3	LIN. FT.				142	142
	2501.511	36" R.C. PIPE CULVERT, CLASS 3	LIN. FT.				184	184
	2501.511	48" R.C. PIPE CULVERT, CLASS 2	LIN. FT.				98	98
	2501.511	48" R.C. PIPE CULVERT, CLASS 3	LIN. FT.				204	204
	2501.511	66" R.C. PIPE CULVERT, CLASS 3	LIN. FT.				40	40
	2501.511	66" R.C. PIPE CULVERT, CLASS 4	LIN. FT.				56	56
	2501.511	66" R.C. PIPE CULVERT, CLASS 5	LIN. FT.				48	48
	2501.515	18" G.S. PIPE APRONS	EACH				128	128
	2501.515	24" G.S. PIPE APRONS	EACH				26	26
	2501.515	30" G.S. PIPE APRONS	EACH				8	8
	2501.515	12" R.C. PIPE APRON (INLET)	EACH				1	1
	2501.515	18" R.C. PIPE APRON (OUTLET)	EACH				2	2
	2501.515	24" R.C. PIPE APRONS	EACH				6	6
	2501.515	30" R.C. PIPE APRONS	EACH				6	6
	2501.515	36" R.C. PIPE APRONS	EACH				4	4
	2501.515	48" R.C. PIPE APRONS	EACH				6	6
	2501.515	66" R.C. PIPE APRONS	EACH				2	2
	2501.521	57" SPAN C.S. PIPE-ARCH CULV.	LIN.FT.				28	28
	2501.521	28" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				186	186
	2501.521	36" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				70	70
	2501.521	44" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				56	56
	2501.521	51" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				324	324
	2501.521	65" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				160	160
	2501.521	102" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				48	48
	2501.521	102" SPAN R.C. PIPE-ARCH CULVERT, CLASS 3A	LIN.FT.				80	80
	2501.521	102" SPAN R.C. PIPE-ARCH CULVERT, CLASS 4A	LIN.FT.				136	136
	2501.521	154" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				246	246
	2501.521	169" SPAN R.C. PIPE-ARCH CULVERT, CLASS 2A	LIN.FT.				30	30
	2501.521	169" SPAN R.C. PIPE-ARCH CULVERT, CLASS 3A	LIN.FT.				90	90
	2501.525	57" SPAN G.S. PIPE-ARCH APRONS	EACH				2	2
	2501.525	28" SPAN R.C. PIPE-ARCH APRONS	EACH				6	6
	2501.525	36" SPAN R.C. PIPE-ARCH APRONS	EACH				2	2
	2501.525	44" SPAN R.C. PIPE-ARCH APRONS	EACH				2	2
	2501.525	51" SPAN R.C. PIPE-ARCH APRONS	EACH				8	8
	2501.525	65" SPAN R.C. PIPE-ARCH APRONS	EACH				4	4
	2501.525	102" SPAN R.C. PIPE-ARCH APRONS	EACH				4	4
	2501.525	154" SPAN R.C. PIPE-ARCH APRONS	EACH				6	6
	2501.525	169" SPAN R.C. PIPE-ARCH APRONS (14' LENGTH)	EACH				2	2
	2502.521	8" C.S. PIPE DRAIN	LIN.FT.				1215	1215
	2502.521	10" C.S. PIPE DRAIN	LIN.FT.				170	170
	2502.551	8" C.S. INSPECTION TEES	LIN.FT.				68	68
	2502.551	10" C.S. INSPECTION TEES	LIN.FT.				8	8
	2503.511	12" R.C. PIPE SEWER CL.4	LIN.FT.				753	753
	2503.511	15" R.C. PIPE SEWER CL.4	LIN.FT.				323	323
	2503.511	18" R.C. PIPE SEWER CL.4	LIN.FT.				610	610
	2506.508	CONSTRUCT MANHOLES DESIGN "C"	EACH				7	7
	2506.509	CONSTRUCT CATCH BASIN DESIGN "C"	EACH				9	9
	2511.501	RANDOM RIPRAP CLASS III	CU.YD.				708	708
	2511.511	GRANULAR FILTER	CU.YD.				330	330

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT			MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
	2575.501	ROADSIDE SEEDING (P)	ACRE				42	42
	2575.502	SEED MIXTURE 2	POUND				4200	4200
	2575.502	SEED MIXTURE 5	POUND				2100	2100
	2575.505	SODDING	SQ.YD.				32354	32354
⑨	2575.511	MULCH MATERIAL TYPE 1	TON				84	84
	2575.519	DISC ANCHORING (P)	ACRE				42	42
⑩	2575.531	COMMERCIAL FERTILIZER ANALYSIS 12-12-12	TON				4	4
⑪	2573.501	BALE CHECK	EACH				510	510
	2211.501	AGGREGATE BASE, CLASS 5 MODIFIED	TON				28031	28031

(P) PLAN QUANTITY

① IN AREAS DESIGNATED BY THE ENGINEER.

② REMOVE CONCRETE BOX CULVERT STA. 473+95 INPL. W108x66', STA. 494+32 INPL. W46x102', STA. 524+59 INPL. W55x85', STA. 547+53 INPL. W33x68', STA. 558+88 INPL. W106Tx35', STA. 561+20 INPL. W55x36' AND STA. 604+93 INPL. W64x94'.

③ REMOVE CONCRETE DAM 72' RIGHT STA. 494+32 INPL. 28' WIDE STRUCTURE.

④ UNCLASSIFIED EXCAVATION INCLUDES SUBGRADE TREATMENT AS SHOWN ON PLAN PROFILE SHEETS.

⑤ EQUIPMENT HOURS ARE FOR OBLITERATING OLD ROAD AT LOCATIONS NOTED IN THE PLANS.

⑥ WATER TO BE USED AS A DUST PREVENTATIVE AS DIRECTED BY THE ENGINEER.

⑦ CALCIUM CHLORIDE SOLUTION COMPUTED FOR 44' WIDE AND 0.35 GAL./LON/SQ.YD. APPLICATION. APPLY TO COMPLETED AGGREGATE BASE SURFACE.

⑧ INCLUDES 25,413 TONS FOR MAINLINE, 540 TONS FOR C.S.A.H 11 APPROACH, 325 TONS FOR C.S.A.H 24 APPROACH, 319 TONS FOR C.R.102 APPROACH, 225 TONS FOR TOWNSHIP ROAD APPROACH RIGHT STA. 537+65, 1560 TONS FOR 52 F.ENT., 2800 TONS FOR 56 RES. DRIVES, 450 TONS FOR 9 PUBLIC ROAD APPROACHES AND 1160 TONS FOR RAMPS TO FINISHED GRADE AT BEGINNING AND END OF PROJECT, AT BEGINNING CONST. C.S.A.H. 11 AND BEGINNING CONSTRUCTION C.S.A.H. 24.

⑨ APPLICATION RATE 2 TONS/ACRE.

⑩ APPLICATION RATE 200 LBS./ACRE.

⑪ HAY OR STRAW BALES TO BE USED FOR EROSION CONTROL.

SODDING LOCATIONS

LT.	RT.	℄ CULVERT APRONS	
STA. 308+30 TO STA. 311+00	STA. 320+90 TO STA. 324+00	STA. 11+80 C.S.A.H. 11	STA. 3+90 C.R. 102
STA. 330+30 TO STA. 333+40	STA. 325+80 TO STA. 327+80	STA. 318+73	STA. 494+32
STA. 402+70 TO STA. 405+00	STA. 349+30 TO STA. 354+80	STA. 344+21	
STA. 425+40 TO STA. 434+50	STA. 400+70 TO STA. 404+00	STA. 345+10	STA. 524+59
STA. 439+00 TO STA. 441+70	STA. 412+00 TO STA. 415+50	STA. 345+20	STA. 535+66
STA. 461+70 TO STA. 468+00	STA. 448+50 TO STA. 452+00	STA. 355+00	STA. 2+20 TWP. RD. RT. STA. 537+65
STA. 477+50 TO STA. 480+00	STA. 518+50 TO STA. 522+00	STA. 366+09	STA. 3+77 TWP. RD. RT. STA. 537+65
STA. 498+60 TO STA. 500+30	STA. 529+00 TO STA. 533+00	STA. 400+42	STA. 547+53
STA. 521+00 TO STA. 523+00	STA. 536+00 TO STA. 537+60	STA. 408+54	STA. 549+85
STA. 563+00 TO STA. 585+00	STA. 550+00 TO STA. 554+00	STA. 423+56	STA. 561+20
STA. 598+70 TO STA. 601+60	STA. 565+00 TO STA. 575+00	STA. 433+40	STA. 580+94
		STA. 433+83	STA. 604+93
		STA. 444+69	
		STA. 456+55	
		STA. 0+55 C.R. 102	

① 2000 SQ.YDS. SOD TO BE PLACED AS DITCH LINERS AS DIRECTED BY THE ENGINEER.

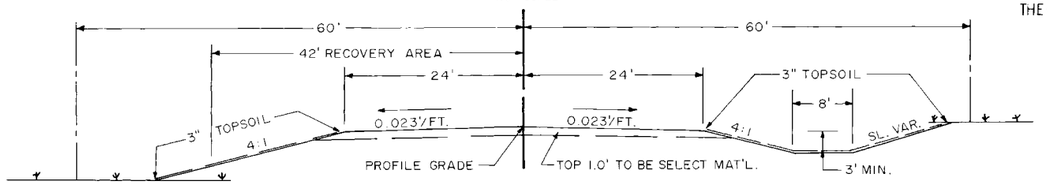
STANDARD PLATES

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

PLATE NO.	DESCRIPTION	PLATE NO.	DESCRIPTION
0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES.	3145 D	CONCRETE PIPE TIES
3000 K	REINFORCED CONCRETE PIPE.	3221 C	CORRUGATED STEEL PIPE COUPLING BAND.
3004 B	REINFORCED CONCRETE PIPE.	4002 E	MANHOLE OR CATCH BASIN.
3007 A	SHEAR REINF. FOR PRECAST DRAINAGE STRUCTURES	4010 F	CONC. SHORT CONE & ADJUSTING RING.
3014 J	REINFORCED CONCRETE PIPE ARCH DETAIL.	4101 C	RING CASTING FOR MANHOLE OR CATCH BASIN.
3040 F	CORRUGATED METAL PIPE CULVERT.	4110 D	COVER CASTING FOR MANHOLE.
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE.	4129 F	CATCH BASIN FRAME CASTING.
3110 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH	4151 B	GRATE CASTING FOR CATCH BASIN.
3114 G	SECTIONAL CONCRETE APRON FOR REINF. CONC. PIPE-ARCH.	4160 D	CURB BOX CASTING FOR CATCH BASIN.
3122 I	METAL APRON FOR C.M. PIPE-ARCH CULVERT.	4180 H	MANHOLE OR CATCH BASIN STEP.
3123 I	METAL APRON FOR C.S. PIPE.	8000 I	STANDARD BARRICADES.
3124 B	METAL APRON CONNECTION.	9000 B	APPROACHES AND ENTRANCES.
3133 B	RIPRAP AT R.C.P. OUTLETS.		
3134 B	RIPRAP AT C.M.P. OUTLETS.		
3142 A	OUTLET SCREEN FOR C.M. & S.C. PIPES.		
3143 C	INSPECTION TEES.		

TYPICAL GRADING SECTIONS

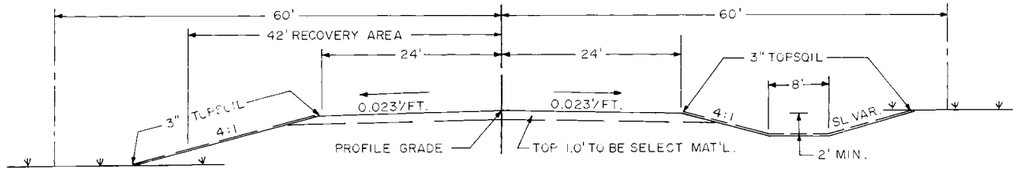
NO SCALE



STA. 293+00 TO STA. 324+00
STA. 333+00 TO STA. 349+00
STA. 354+80 TO STA. 400+50
STA. 404+00 TO STA. 412+50
STA. 416+00 TO STA. 430+00

STA. 432+20 TO STA. 438+50
STA. 442+00 TO STA. 448+00
STA. 450+90 TO STA. 461+00
STA. 467+50 TO STA. 498+00
STA. 501+00 TO STA. 518+50
STA. 521+50 TO STA. 529+00

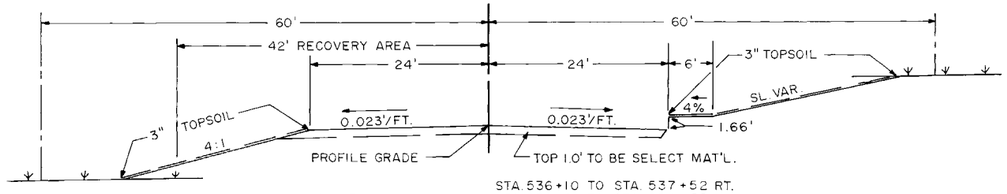
STA. 532+70 TO STA. 536+10
STA. 537+52 TO STA. 550+00
STA. 554+20 TO STA. 566+37
STA. 583+00 TO STA. 598+50
STA. 602+00 TO STA. 615+70



STA. 324+00 TO STA. 333+00
STA. 400+50 TO STA. 404+00
STA. 412+50 TO STA. 416+00

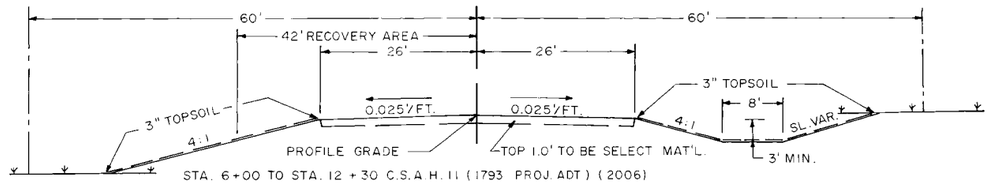
STA. 430+00 TO STA. 432+20
STA. 438+50 TO STA. 442+00
STA. 448+00 TO STA. 450+90

STA. 461+00 TO STA. 467+50
STA. 498+00 TO STA. 501+00
STA. 580+80 TO STA. 583+00

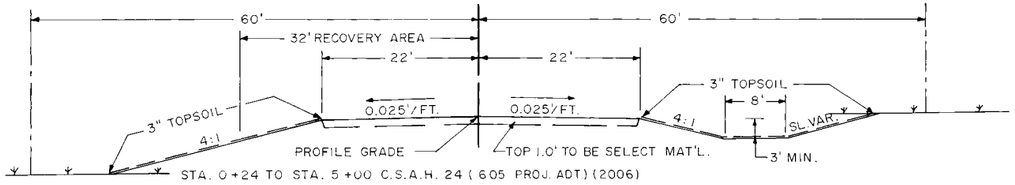


STA. 349+00 TO STA. 354+80 RT.
STA. 518+50 TO STA. 521+50 RT.
STA. 529+00 TO STA. 532+93 RT.

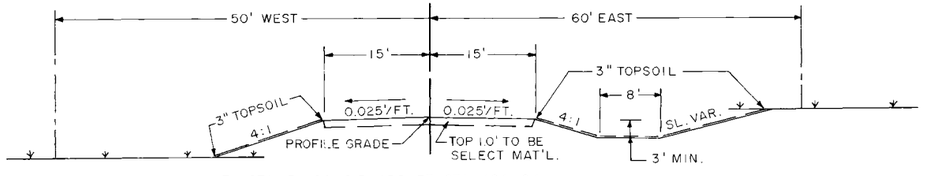
STA. 536+10 TO STA. 537+52 RT.
STA. 550+00 TO STA. 554+50 RT.
STA. 566+50 TO STA. 574+80 RT.
STA. 598+50 TO STA. 602+00 RT.
STA. 567+50 TO STA. 580+50 LT.



STA. 6+00 TO STA. 12+30 C.S.A.H. 11 (1793 PROJ. ADT) (2006)



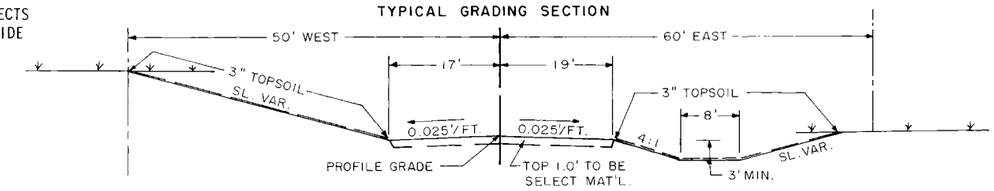
STA. 0+24 TO STA. 5+00 C.S.A.H. 24 (605 PROJ. ADT) (2006)



STA. 0+24 TO STA. 7+00 C.R. 102 RT. STA. 484+84
STA. 2+00 TO STA. 5+00 TWP. RD. RT. STA. 537+65

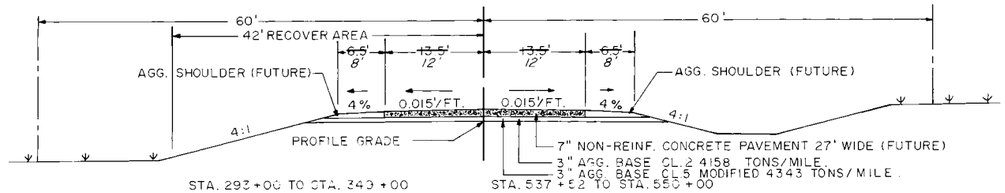
ALL UTILITY POLES AND UNYIELDING OBJECTS SHALL BE REMOVED AND RELOCATED OUTSIDE THE 42' RECOVERY AREA.

TYPICAL GRADING SECTION



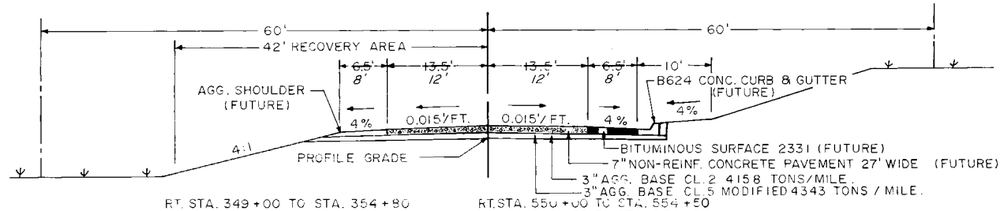
STA. 0+24 TO STA. 2+00 TWP. RD. RT. STA. 537+65

TYPICAL SURFACING SECTION



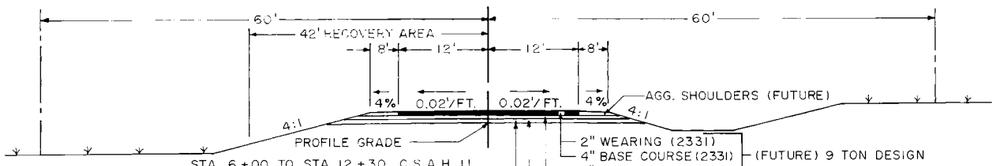
STA. 293+00 TO STA. 349+00
STA. 354+80 TO STA. 518+50
STA. 521+50 TO STA. 529+00
STA. 532+93 TO STA. 536+10

STA. 537+52 TO STA. 550+00
STA. 554+50 TO STA. 566+50
STA. 574+80 TO STA. 598+50
STA. 602+00 TO STA. 615+77

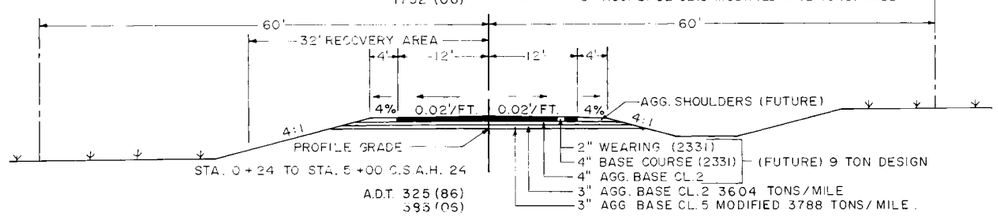


RT. STA. 349+00 TO STA. 354+80
RT. STA. 518+50 TO STA. 521+50
RT. STA. 529+00 TO STA. 532+93
LT. STA. 530+10 TO STA. 537+52

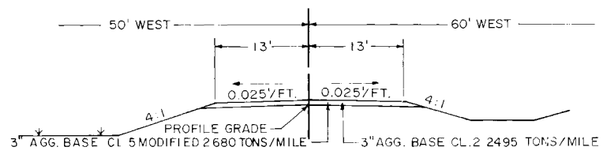
RT. STA. 550+00 TO STA. 554+50
RT. STA. 566+50 TO STA. 574+80
RT. STA. 598+50 TO STA. 602+00
LT. STA. 567+50 TO STA. 580+50



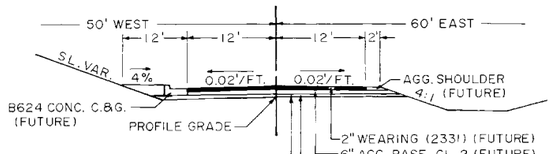
STA. 6+00 TO STA. 12+30 C.S.A.H. 11
A.D.T. 962 (86)
1732 (06)



STA. 0+24 TO STA. 5+00 C.S.A.H. 24
A.D.T. 325 (86)
593 (06)



STA. 0+24 TO STA. 7+00 C.R. 102 RT. STA. 484+84
STA. 2+00 TO STA. 5+00 TWP. RD. RT. STA. 537+65



STA. 0+24 TO STA. 2+00 TWP. RD. RT. STA. 537+65

Fed. Proj. No.

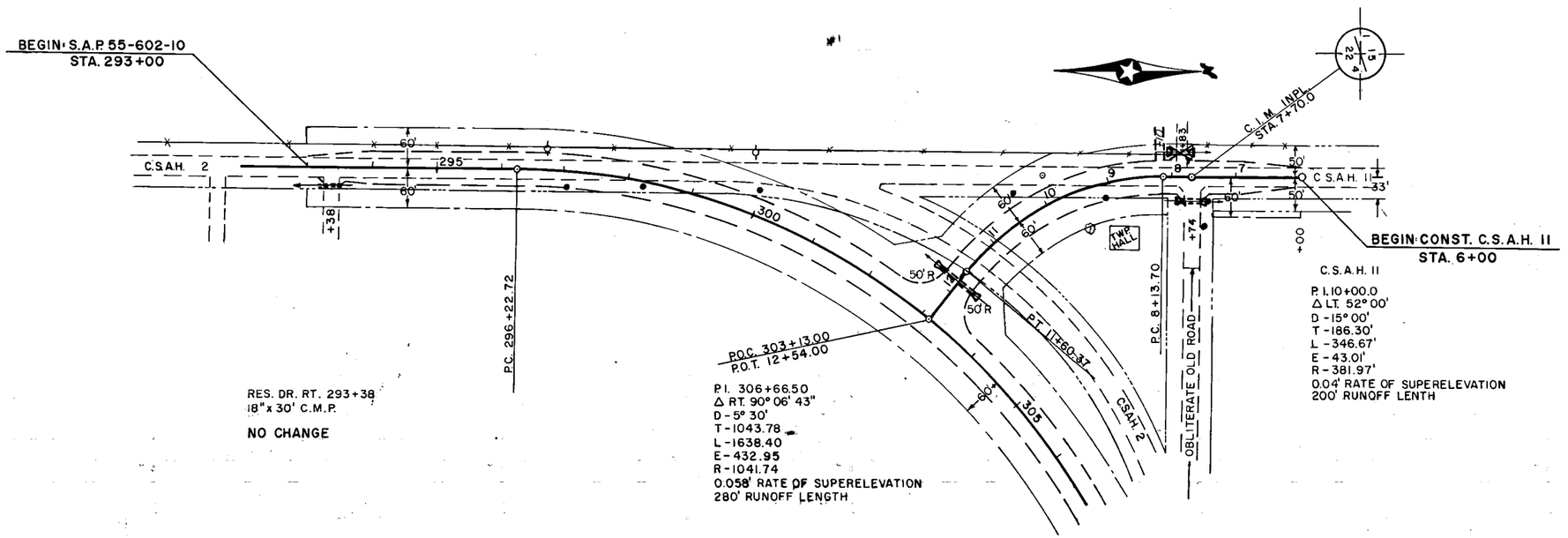
CONST. ℄ CULV. STA. 11+80 C.S.A.H. 11
28" SPAN x 58' R.C.P. ARCH CULV. CL. 2A
2-28" SPAN R.C.P. ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ. YDS. SOD AROUND CULV. APRONS
CONST. DITCH BLOCK AT INLET

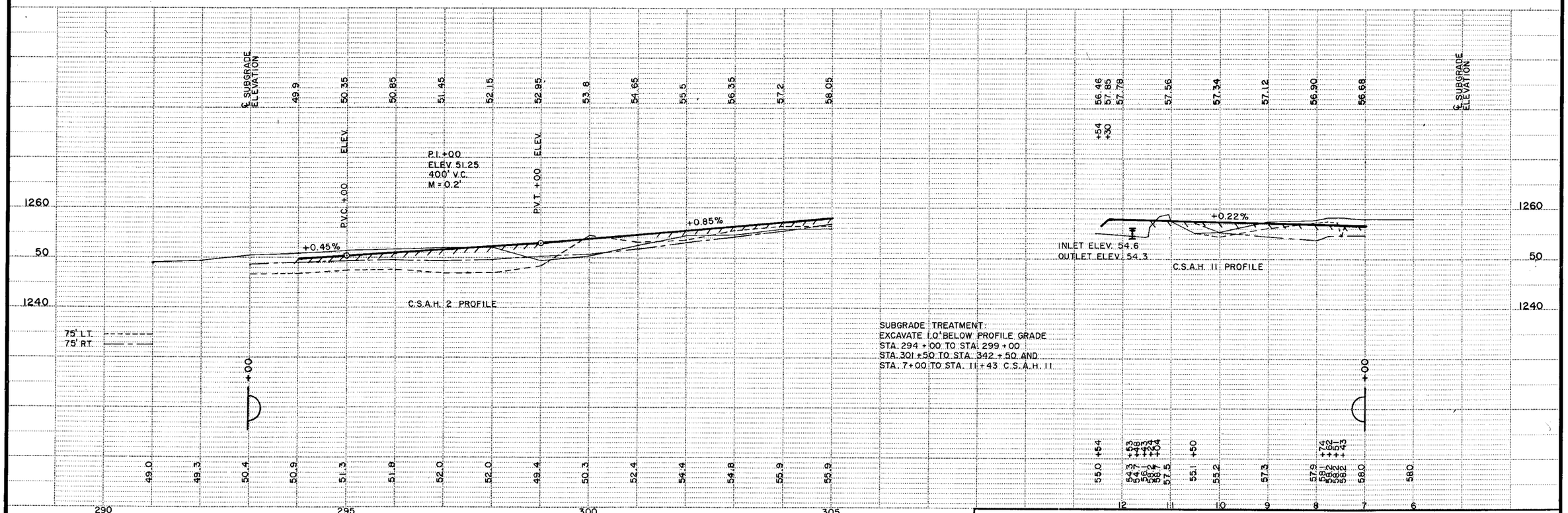
8+10
~~F. ENT. RT. 7+83~~
INPL. 15" x 30' CMP

REMOVE
~~18" x 28' C.S. PIPE CULV.~~
~~2-18" G.S. PIPE APRONS~~
DRY

ROAD LT. 7+74
NO CULV. INPL.

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





~~State Proj. No.~~ S.A.P. 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No. 4 of 115 Sheets**

SNVld 1nno AS BUILT PLANS

Copy Equipment Form #3

℄ CULV. INPL. 130' LT. STA. 307+80
INPL. 15"x80' C.M.P.

REMOVE
NO CULV. REQ'D.

RES. DR. LT. 307 + 62
NO CULV. INPL.

18"x32'C.S. PIPE CULV.
2-18"G.S. PIPE APRONS
MOVE DR. TO STA. 307+30

RES. DR. LT. 308 + 32
INPL. 18" x 30' C.M.P.

REMOVE
MOVE DR. TO 308 + 18
18"x32'C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

F.E. LT. ~~311 + 38~~
INPL. 15" x 22' C.M.P.

REMOVE
18"x28'C.S. PIPE CULV.
2-18"G.S. PIPE APRONS
MOVED TO 315 + 20

℄ CULV. 318 + 73
INPL. 18" x 38' C.M.P.

REMOVE
36"x78'R.C.P. CULV. CL.3
2-36"R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 50 SQ.YDS. SOD AROUND CULV. APRONS

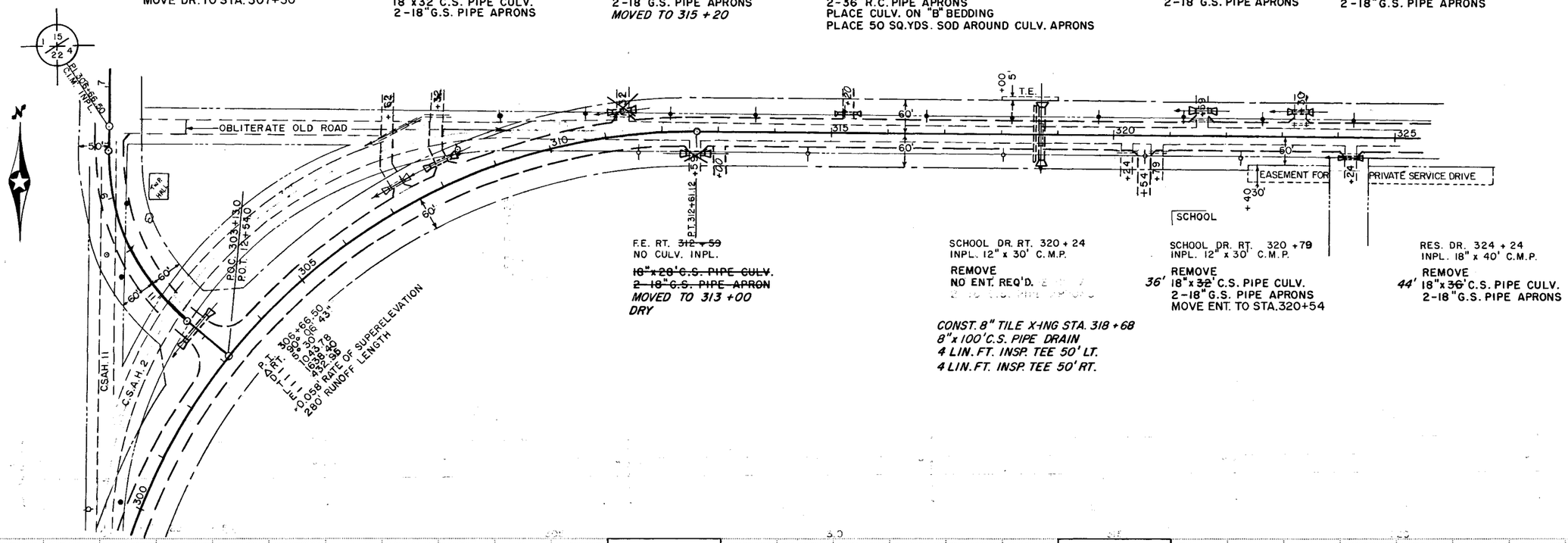
F.E. LT. 321 + 59
INPL. 12" x 24' C.M.P.

REMOVE
18"x28'C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

RES. DR. 323+30
INP. 18"x28' C.M.P.

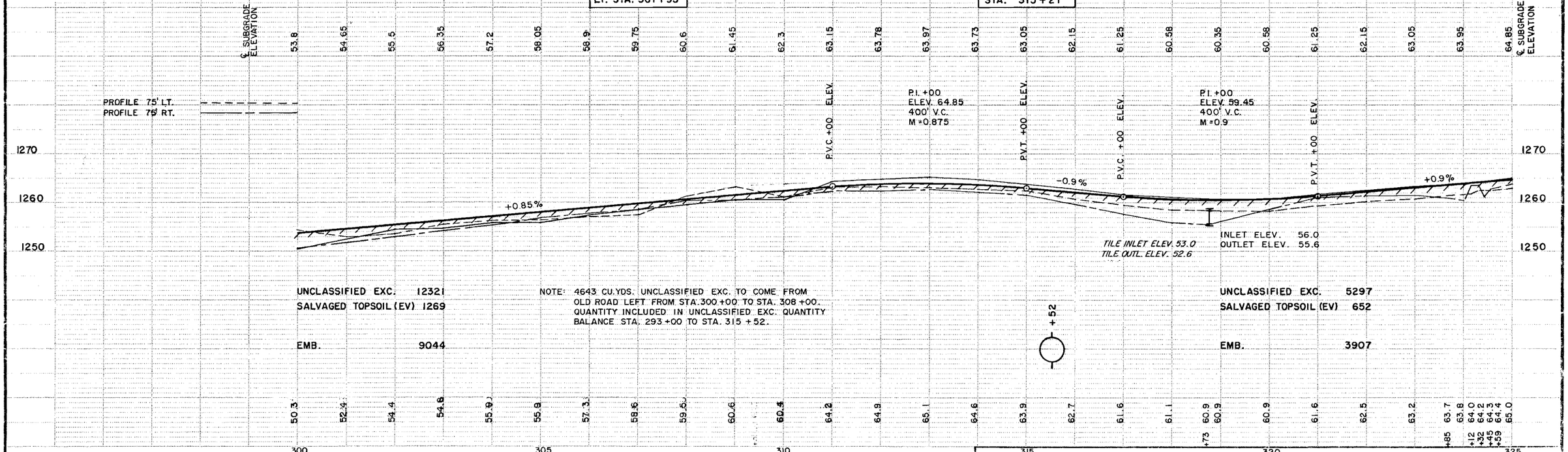
REMOVE
18"x32'C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

Fed. Proj. No.



B.M. EL. 1262.72
SPK. IN COR. POST
LT. STA. 307+95

B.M. EL. 1262.55
SPK. IN T.P. LT.
STA. 315 + 21



UNCLASSIFIED EXC. 12321
SALVAGED TOPSOIL (EV) 1269

EMB. 9044

NOTE: 4643 CU.YDS. UNCLASSIFIED EXC. TO COME FROM OLD ROAD LEFT FROM STA. 300+00 TO STA. 308+00. QUANTITY INCLUDED IN UNCLASSIFIED EXC. QUANTITY BALANCE STA. 293+00 TO STA. 315+52.

UNCLASSIFIED EXC. 5297
SALVAGED TOPSOIL (EV) 652

EMB. 3907

AS BUILT PLANS

Fed. Proj. No. 70

FM. DR. LT. 326+49
INPL. 12"x26' CMP.

REMOVE
18"x32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

FM. DR. LT. 330+13
INPL. 15"x26' CMP.

REMOVE
18"x32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.M. DR. LT. 331+20
INPL. 12"x30' CMP.

REMOVE
18"x32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.E. LT. 333+49
INPL. 12"x20' CMP.

REMOVE
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

℄ CULV. SKEWED 344+21
INPL. 36"x46' CMP.

REMOVE
48"x98" R.C. PIPE CULV. CL. 2 SKEW 35°
2-48" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 37 SQ.YDS. SOD AROUND INLET APRON
22 CU.YDS. RANDOM RIPRAP CL. III 18" DEPTH AND
11 CU.YDS. GRANULAR FILTER 9" DEPTH AT
OUTLET APRON

MOVED TO 344+25 SKEW 35°
TILE OUTLET 15' LT. STA. 344+80
40' REMOVE ~~30~~ LIN. FT. TILE
166' 8"x~~102~~' C.S. PIPE DRAIN & OUTL. SCREEN
4 LIN.FT. C.S. INSPECTION TEE ~~50' LT.~~
CONNECT TO INPLACE TILE *AT APRON END LT.*

F. E. LT. 344+70
NO CULV. INPL.

MOVE F.E. TO 345+00
NO CULV. REQ'D.

℄ CULV. 344+82
INPL. 30"x36' CMP.

REMOVE

CONST ℄ CULV. STA. 345+10
SKEW 15°
51" SPAN x 84' R.C.P.-ARCH CL. 2A
2-51" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD AROUND INL. APRON
17 CU.YDS. RANDOM RIPRAP CL. III. 18"
DEPTH AND 9 CU.YDS. GRANULAR FILTER
9" DEPTH AT OUTLET APRON

℄ CULV. 347+06
INPL. 24"x46' CMP.

REMOVE

℄ CULV. 347+10
INPL. 24"x46' CMP.

REMOVE

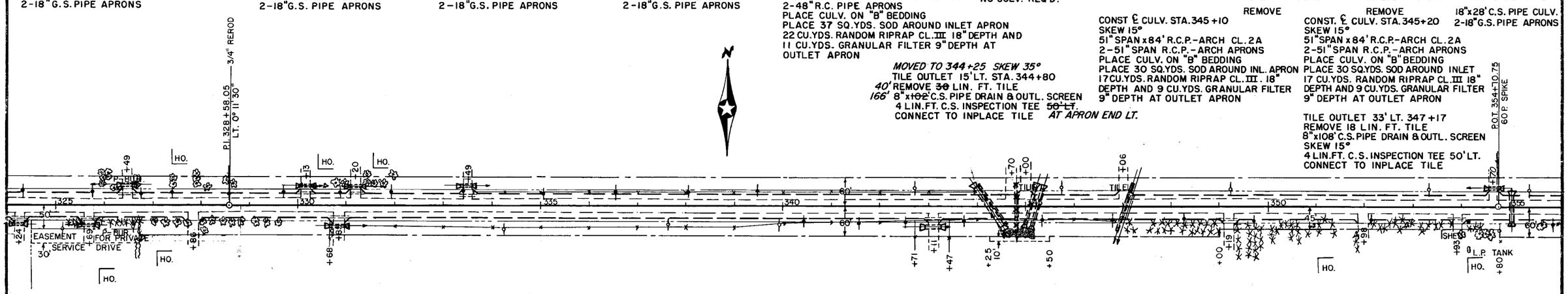
CONST. ℄ CULV. STA. 345+20
SKEW 15°
51" SPAN x 84' R.C.P.-ARCH CL. 2A
2-51" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD AROUND INLET
17 CU.YDS. RANDOM RIPRAP CL. III 18"
DEPTH AND 9 CU.YDS. GRANULAR FILTER
9" DEPTH AT OUTLET APRON

TILE OUTLET 33' LT. 347+17
REMOVE 18 LIN. FT. TILE
8"x108' C.S. PIPE DRAIN & OUTL. SCREEN
SKEW 15°
4 LIN.FT. C.S. INSPECTION TEE 50' LT.
CONNECT TO INPLACE TILE

F.E. LT. 354+~~66~~
NO CULV. INPL.

18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

P.O.T. 354+10.75
60 F. SPIKE



RES. DR. RT. 325+69
INPL. 15"x32' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

RES. DR. RT. 327+86
NO CULV. INPL.

NO CULV. REQ'D.

F.E. RT. 330+85
INPL. 18"x26' C.M.P.

REMOVE
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

RADIO TOWER DR. RT. 343+11
INPL. 15"x30' C.M.P.

REMOVE
24"x32' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

RADIO TOWER

F.E. LT. 347+06
NO CULV. INPL.

NO ENT. REQ'D.

F.E. LT. 349+19
INPL. 18"x26' C.M.P.

REMOVE
NO CULV. REQ'D.

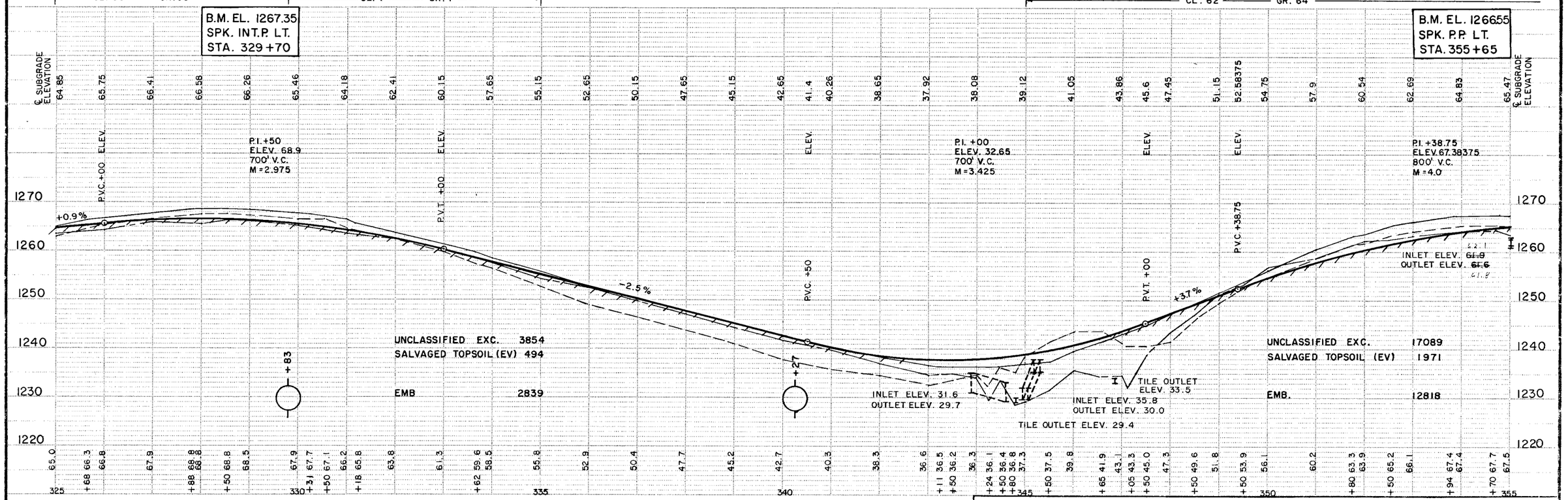
F.M. DR. RT. 351+98
NO CULV. INPL.

NO CULV. REQ'D.

F.M. DR. RT. 353+93
INPL. 12"x26' C.M.P.

REMOVE
NO CULV. REQ'D.

CONST. ℄ CULV. STA. 355+00
28" SPAN x 58' R.C.P.-ARCH CULV. CL. 2A
2-28" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD AROUND INLET & OUTLET APRONS



~~State Proj. No.~~ S.A.P. 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No.** 6 **of** 115 **Sheets**

AS BUILT PLANS

Fed. Proj. No.

℄ CULV. 366+~~69~~ 11
INPL. 18"x 50' C.M.P.

REMOVE
51" SPAN x 78' R.C.P.-ARCH CULV. CL. 2A
2-51" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 60 SQ.YDS. SOD AROUND INLET AND OUTLET APRONS

F.E. LT. ~~366+30~~
NO CULV. INPL.

30"x 28' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS
MOVED TO 367+85

F.E. LT. ~~379+10~~
INPL. 12" x 24' C.M.P.

REMOVE
24"x 28' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS
MOVED TO 378+90
CENTERED ON WATERLINE

T10N R13W
14 13
23 24
T10N R13W

P.I. 381+07.70
Δ LT. 00°08'11"

TWP. RD. LT. 381+08
INPL. 18"x 40' CMP.

REMOVE
24"x 36' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

POT. 354+70.75
60 P SPIKE

T.E.

WATERLINE

TWP. RD. +08

C.R. 119 +40

C.R. 119 RT. 381+08
INPL. 18"x 40' CMP.

REMOVE
18"x 36' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

CONST. F.E. 355+40
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

CONST. F.E. RT. 367+85
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

CONST. F.E. RT. 378+90
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

B.M. EL. 1266.55
SPK. IN P.P. LT.
STA. 355+65

B.M. EL. 1278.30
SPK. IN P.P. LT. 34'
STA. 380+79

CL. 1 — GR. 1

℄ SUBGRADE ELEVATION
65.47 66.12 66.26 66.00 65.7 65.4 65.1 64.8 64.2 64.35 64.5 64.95 65.7 66.6 67.5 68.4 69.3 70.2 71.1 72.0 72.9 73.8 74.7 75.6 76.5 77.4 78.3 79.2 80.1 81.0 81.9

P.V.T. +38.75 ELEV. 66.18375
P.V.C. +00 ELEV.
P.I. +00
ELEV. 63.9
400' V.C.
M = 0.6
P.V.C. +00 ELEV.

+0.3 %
+0.9 %

INLET ELEV. 61.9
OUTLET ELEV. 61.6

INLET ELEV. 60.8
OUTLET ELEV. 59.0

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
STA. 346+80 TO STA. 404+30.

1290 1280 1270 1260 1250

67.5 67.5 67.6 67.6 67.2 66.6 66.0 65.4 65.1 64.8 65.2 65.6 65.6 66.2 66.8 67.0 67.8 68.5 69.4 70.3 71.4 72.6 74.0 75.0 75.9 76.8 77.8 78.6 79.6 79.8 80.0 80.0 80.0 80.2 80.2 80.2 80.4 83.1 82.4 83.4

355 360 365 370 375 380 385

+40

~~State Proj. No.~~ S.A.P. 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No. 7 of 115 Sheets**

AS BUILT PLANS

~~F.E. LT. 388+36~~
~~NO CULV. INPL.~~

~~18"x28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
OMIT

F.E. LT. 386+47
INPL. 18"x34' C.M.P.

REMOVE
18"x28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

F.E. LT. ~~396+67~~
NO CULV. INPL.

18"x28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS
MOVED TO 393+75

℄ CULV. 400+42
INPL. 18"x36 C.M.P.

REMOVE
MOVE CULV. TO STA. 400+35
44"SPAN x 56'R.C.P.-ARCH CULV. CL.2A
2-44"SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 50 SQ.YDS. SOD AROUND
INLET & OUTLET APRONS

F.E. LT. ~~401+95~~
NO CULV. INPL.

~~18"x28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
MOVED TO 401+15
DRY

RES. DR. LT. 402+55
INPL. 15"x26' C.M.P.

REMOVE
28' 18"x~~32~~' C.S.P. PIPE CULV.
2-18"G.S. PIPE APRONS

Fed. Proj. No.

F.E. LT. ~~414+10~~
NO CULV. INPL.

~~18"x28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
MOVED TO 412+00
DRY

RES. DR. LT. 404+10
INPL. 15"x26' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

CONST. 8" TILE CROSSING STA. 408+~~49~~ 34' SKEW 20°
8"x130' C.S. PIPE DRAIN
5 LIN. FT. C.S. INSPECTION TEE 69' LT.
5 LIN. FT. C.S. INSPECTION TEE 59' RT.
F&I APPROVED PLUGS AT INLET & OUTLET

P.I. 407+20.24
Δ 0° 07' 30" 5/8" RE ROD

F.E. RT. ~~389+18~~
NO CULV. INPL.

18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS
MOVED TO 386+47

RES. DR. RT. 400+~~56~~ 60
NO CULV. INPL

NO CULV. REQ'D.

MOBLE HO.

RES. DR. RT. ~~402+90~~
INPL. 12"x24' C.M.P.

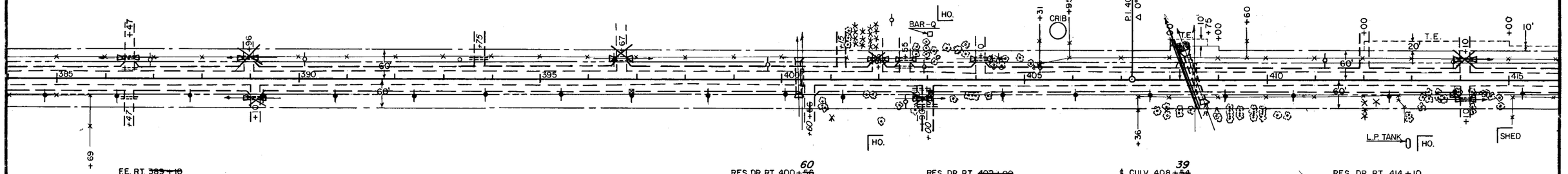
REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS
MOVED TO 403+00

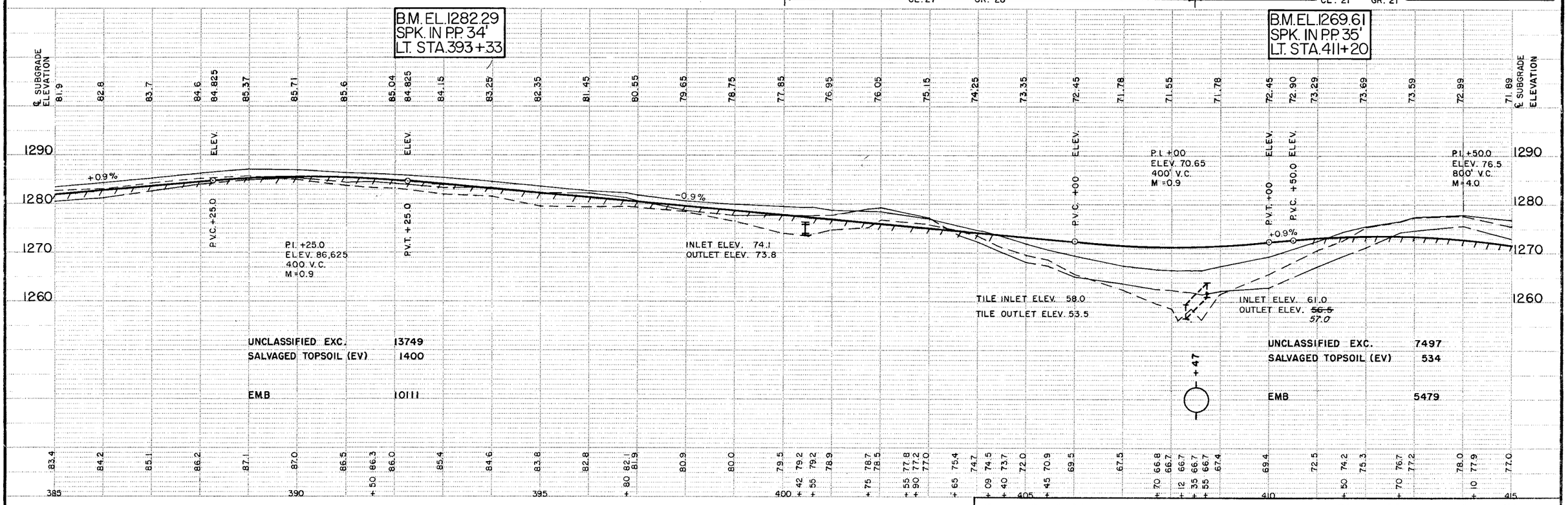
℄ CULV. 408+~~54~~ 39
INPL. 24"x 60' C.M.P.

REMOVE
SKEW CULV. 20°
36"x106' R.C. PIPE CULV. CL.3
2-36" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 24 SQ.YDS. SOD AROUND
INLET APRON
14 CU.YDS. RANDOM RIPRAP CL.III
18" DEPTH & 7 CU.YDS. GRANULAR
FILTER 9" DEPTH AT OUTLET APRON

RES. DR. RT. 414+10
NO CULV. INPL.

18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS





UNCLASSIFIED EXC. 13749
SALVAGED TOPSOIL (EV) 1400

EMB 10111

UNCLASSIFIED EXC. 7497
SALVAGED TOPSOIL (EV) 534

EMB 5479

AS BUILT PLANS

F.E. LT. 420 + 42
INPL. 18"x 28' C.M.P.

REMOVE
18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

℄ CULV. 423 +~~50~~ 66
INPL. 30"x 36' C.M.P.

REMOVE
51"SPAN x 78' R.C.P.-ARCH CULV. CL. 2A
2-51"SPAN R.C.P. ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 29 SQ.YDS. SOD AROUND INLET APRON
17 CU.YDS. RANDOM RIPRAP CL. III 18" DEPTH &
9 CU.YDS. GRANULAR FILTER 9" DEPTH AT
OUTLET APRON

RES. DR. LT. 427 + 68
INPL. 15"x 30' C.M.P.

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

CONST. 8" TILE CROSSING STA. 423 +~~50~~ 60
8"x 120' C.S. PIPE DRAIN
4 LIN. FT. C.S. INSPECTION TEE 59' LT.
5 LIN. FT. C.S. INSPECTION TEE 59' RT.
F & I APPROVED PLUGS AT INLET & OUTLET

F.E. LT. 429 + 98
NO CULV. INPL.

18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

RES. DR. LT. 432 + 07
INPL. 12"x 24' C.M.P.

REMOVE
~~18"x 32' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
DRY
NO CULV. REQ'D.

P.I. 433+45.91
Δ RT. 0°09'00" 1/2° REROD

℄ CULV. 433 + 83
INPL. 36"x 68' C.M.P.

REMOVE
30"x 102' R.C. PIPE CULV. CL. 3
2-30" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 20 SQ.YDS. AT INLET APRON
10 CU.YDS. RANDOM RIPRAP CL. III 18" DEPTH
& 5 CU.YDS. GRANULAR FILTER 9" DEPTH
AT OUTLET APRON

F.E. LT. 434 + 60
INPL. 12"x 24 C.M.P.

REMOVE
MOVE ENT. TO 436 +00
18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

RES. DR. LT. 437 + 96
INPL. 18"x 28' C.M.P.

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

RES. DR. LT. 440 + 14
INPL. 12"x 24' C.M.P.

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

CONST. 8" TILE CROSSING STA. 433 + 88
130 8"x ~~120'~~ C.S. PIPE DRAIN
4 LIN. FT. C.S. INSPECTION TEE ~~59'~~ LT. 70'
4 LIN. FT. C.S. INSPECTION TEE ~~59'~~ RT. 60'
F & I APPROVED PLUGS AT INLET & OUTLET

F.E. RT. 429 + 96
NO CULV. INPL.

~~18"x 28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
DRY
NO CULV. REQ'D.

TWP. RD RT. 433 + 47
INPL. 24"x 40' C.M.P.

REMOVE
NO CULV. REQ'D.

CONST. ℄ CULV. 433 + 40 SKEW 25°
48"x 102' R.C. PIPE CULV. CL. 3
2-48" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 37 SQ.YDS. SOD AROUND INLET APRON
22 CU.YDS. RANDOM RIPRAP CLASS III 18" DEPTH &
11 CU.YDS. GRANULAR FILTER 9" DEPTH AT
OUTLET APRON

F.E. RT. 436 +~~12~~ 15
INPL. 15"x 24' C.M.P.

REMOVE
18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

F.E. LT. 441 + 80
NO CULV. INPL.

18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

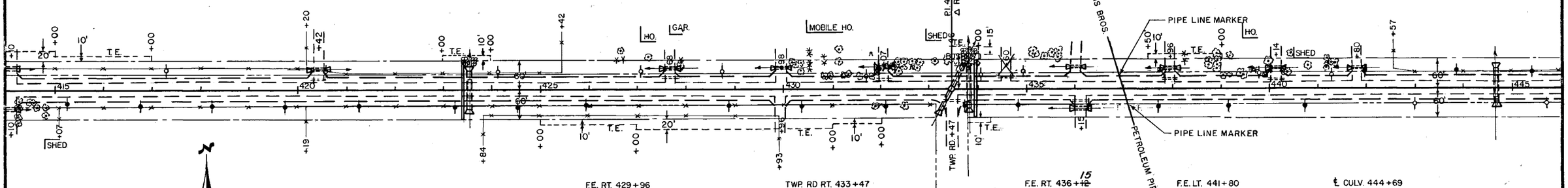
℄ CULV. 444 + 69
INPL. 18"x 44' C.M.P.

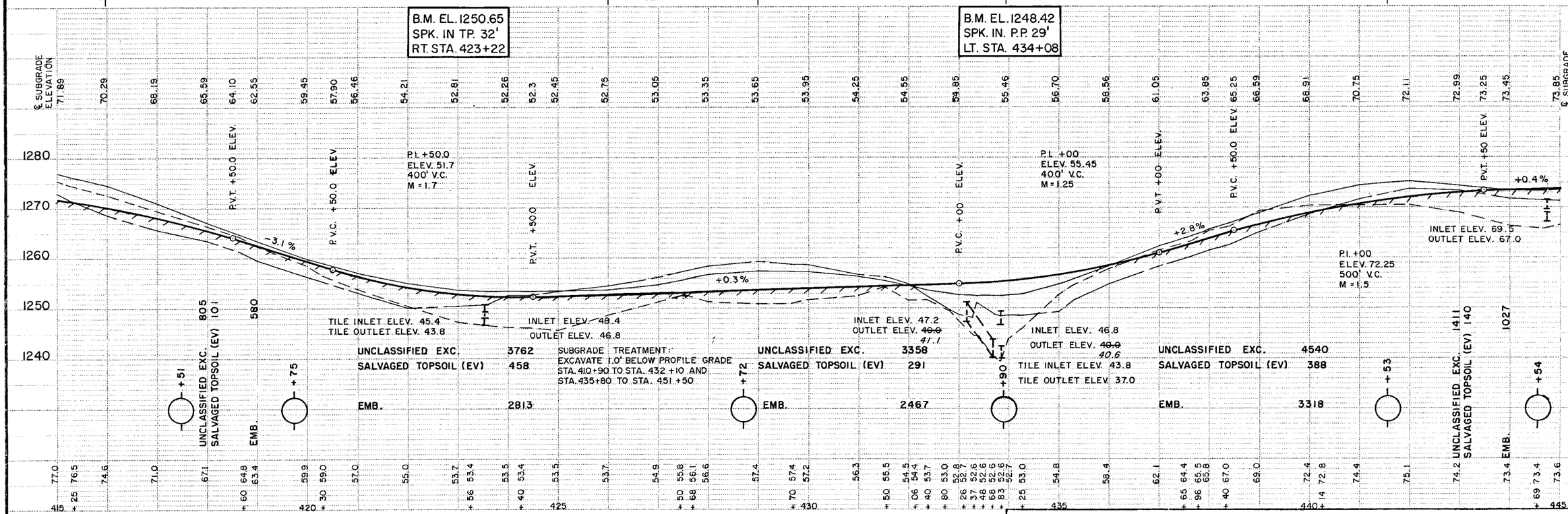
REMOVE
24"x 68' R.C. PIPE CULV. CL. 3
2-24"G.S. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD AROUND INLET
& OUTLET APRONS

WILLIAMS BROS. PETROLEUM PIPE LINE

PIPE LINE MARKER

PIPE LINE MARKER





~~State Proj. No.~~ S.A.P. 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No. 9 of 115 Sheets**

Fed. Proj. No.

AS BUILT PLANS

Fed. Proj. No.

F.E. LT. 446+24
NO CULV. INPL.

18"x28' C.S. PIPE CULV.
2-18"G.S. PIPE APRON

℄ CULV. 456+55
INPL. 18"x52' CMP.

REMOVE
24"x74' R.C. PIPE CULV. CL.2
2-24"R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD AROUND
INLET & OUTLET APRONS

F.E. LT. 457+02
NO CULV. INPL.

NO CULV. REQ'D.

C.S.A.H. 24 LT. 458+61
NO CULV. INPL.

END CONST.
STA. 5+00

RES. DR. LT. 461+65
INPL. 15"x 24' CMP.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

RES. DR. LT. 463+88
INPL. 18"x 32' CMP.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

F.E. LT. 469+90
NO CULV. INPL.

NO CULV. REQ'D.

℄ CULV. 473+95
INPL. W108 x 66'
CONC. BOX BR. NO. 8572

REMOVE CONC. BOX CULV.

CONST. ENT. RT. STA. ~~2+50~~ (C.S.A.H. 24)
NO CULV. REQ'D.
MOVE TO 1+85

RES. DR. LT. 466+80
INPL. 18"x 28' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

RES. DR. LT. 467+68
INPL. 18"x 32' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

CONST. F ENT. LT. STA. 472+00
NO CULV. REQ'D.

F.E. RT. ~~446+60~~
INPL. 15"x24' CMP.

REMOVE
~~18"x28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
MOVED TO 448+00
NO CULV. REQ'D.

RES. DR. RT. 450+95
INPL. 15"x 24' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

CONST. F.E. RT. 452+65
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.E. RT. 458+80
NO CULV. INPL.

~~NO F.E. REQ'D.~~

CONST. 10" TILE CROSSING STA. 473+~~84~~ *95*
10" x 170' C.S. PIPE DRAIN
6 4 LIN. FT. C.S. INSPECTION TEE 89' LT.
6 4 LIN. FT. C.S. INSPECTION TEE 79' RT.
F. & I. APPROVED PLUGS AT INLET & OUTLET

FM. DR. RT. 470+38
INPL. 18"x 34' CMP. 80' RIGHT

NO CHANGE TO INPL. CULV.
44 18"x~~32~~ C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

CONST. ℄ CULV. STA. 473+~~95~~ *84*
169"SPAN x 30' R.C.P.-ARCH CULV. CL.2A
169"SPAN x 90' R.C.P.-ARCH CULV. CL.3A
2-169" SPAN R.C.P.-ARCH APRONS 14' IN LENGTH
PLACE CULV. ON 71 CU.YDS. (CV) GRANULAR
BEDDING 1.0' DEEP x 16' WIDE x 120' LONG.
PLACE 5 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH
2' ON EACH SIDE INLET APRON.
130 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH
AT OUTLET APRON.
52 CU.YDS. GRANULAR FILTER 9" DEPTH AT
OUTLET APRON.

CL. 13 — GR. 15 | CL. 28 — GR. 34 | CL. 4 — GR. 8

B.M. EL. 1273.67
SPK. IN T.P. 33'
LT. STA. 449+99

B.M. EL. 1193.17
SPK. IN P.P. 33'
RT. STA. 474+30

℄ SUBGRADE ELEVATION

+0.4%

P.V.C. +90.0 ELEV.

P.V.T. +10.0 ELEV.

-1.7%

P.V.C. +00 ELEV.

P.I. +50
ELEV. 59.7
700' V.C.
M=2.8

INLET ELEV. 60.8
OUTLET ELEV. 56.0

P.V.T. +00 ELEV.

-4.9%

P.V.C. +00 ELEV.

P.I. +50
ELEV. 91.1
1100' V.C.
M=13475

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
STA. 456 + 50 TO STA. 469 +10

INLET ELEV. 81.8
OUTLET ELEV. 80.8

TILE INLET ELEV. 78.8

TILE OUTLET ELEV. 77.8

UNCLASSIFIED EXC.	1791	2054	6697	5931
SALVAGED TOPSOIL (EV)	176	205	607	655
EMB.	1305	1514	4975	4296

~~State Proj. No.~~ S.A.P. 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No.** 10 **of** 115 **Sheets**

AS BUILT PLANS

Fed. Proj. No.

F.E. LT. 477+22
NO CULV. INPL.

RES. DR LT. 477+39
INPL. 18"x28' C.M.P.

REMOVE
CONST. DOUBLE APPROACH LT. 477+~~30~~ 48
30"x60' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

F.E. LT. 481+96
INPL. 18"x28' C.M.P.

REMOVE
24"x28' C.S. PIPE CULV.
2-24"G.S. PIPE APRONS

F.E. LT. ~~489+44~~
NO CULV. INPL.

~~18"x28' C.S. PIPE CULV~~
~~2-18"G.S. PIPE APRONS~~
MOVED TO 492+20
NO CULV. REQ'D.

℄ CULV. 494+32
INPL. H6' W4'x102'
CONC. BOX

REMOVE CONC. BOX CULV.
66"x48' R.C. PIPE CULV. CL.5
66"x56' R.C. PIPE CULV. CL.4
66"x40' R.C. PIPE CULV. CL.3
PLACE CULV. ON "B" BEDDING
PLACE 41 SQ.YDS. SOD AROUND INLET APRON
32 CU.YDS. RANDOM RIPRAP CL. III 18" DEPTH &
16 CU.YDS. GRANULAR FILTER 9" DEPTH AT OUTLET APRON
REMOVE CONC. DAM 72' RIGHT STA. 494+32
2-66" R.C. PIPE APRONS

RES. DR. LT. 498+55
INPL. 18"x42' C.M.P.

REMOVE
18"x32' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

F.E. RT. 477+91
INPL. 30"x24' C.M.P.

REMOVE
57"SPAN x 28' C.S. PIPE-ARCH CULV.
2-57"SPAN G.S. PIPE-ARCH APRONS

CR. 102 RT. 484+84
INPL. 18"x48' C.M.P.

REMOVE
PLACE CULV. AT STA. 0+55
30"x40' R.C. PIPE CULV. CL.3
2-30" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 40 SQ.YDS. SOD AROUND
INLET & OUTLET APRONS
CONST. DITCH BLOCK AT INLET

F.E. RT. ~~489+40~~
NO CULV. INPL.

~~18"x28' C.S. PIPE CULV.~~
~~2-18"G.S. PIPE APRONS~~
MOVED TO 492+30
NO CULV. REQ'D.

F.E. LT. 0+94 CR 102
NO CULV. INPL.

~~NO CULV. REQ'D~~
MOVED TO STA. 3+00
18"x28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

℄ CULV 3+90 CR. 102
INPL. 24"x 36' C.M.P/CONC. HDWL.

REMOVE
30"x62' R.C. PIPE CULV. CL.2
2-30" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 20 SQ.YDS. SOD AROUND INLET APRON
10 CU.YDS. RANDOM RIPRAP CLASS III 18" DEPTH &
5 CU.YDS. GRANULAR FILTER 9" DEPTH
AT OUTLET APRON

F.E. RT. 498+43
INPL. 18"x 30' C.M.P.

REMOVE
18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

CONST. 8" TILE CROSSING STA. 494+~~27~~ 38
8"x170' C.S. PIPE DRAIN
4 LIN. FT. C.S. INSPECTION TEE 94' LT.
5 LIN. FT. C.S. INSPECTION TEE 74' RT.
F&I APPROVED PLUGS AT INLET & OUTLET
HOOKED TO FIELD TILE RT. 494+00

F.E. RT. 503+33
INPL. 18"x24' C.M.P.

REMOVE
18"x 28' C.S. PIPE CULV.
2-18"G.S. PIPE APRONS

B.M. EL. 1239.01
SPK. IN P.P. 35'
LT. STA. 483+18

B.M. EL. 1247.39
SPK. IN T.P. LT.
STA. 495+38

UNCLASSIFIED EXC. 26748
SALVAGED TOPSOIL (EV) 1688
EMB. 19706

UNCLASSIFIED EXC. 15815
SALVAGED TOPSOIL (EV) 717
EMB. 11635

UNCLASSIFIED EXC. 7428
SALVAGED TOPSOIL (EV) 757
EMB. 5388

SUBGRADE TREATMENT:
EXCAVATE 1.0' BELOW PROFILE GRADE
STA. 476+90 TO STA. 492+20
STA. 498+80 TO STA. 521+40

TILE INLET ELEV. 32.0
TILE OUTLET ELEV. 25.5

INLET ELEV. 35.0
OUTLET ELEV. 28.8

P.I. +63.04348
ELEV. 55.43913
900' V.C.
M=5.175

P.I. +50.0
ELEV. 58.1
400' V.C.
M=1.4

P.I. +70.58823
ELEV. 80.45824
700' V.C.
M=2.975

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AS BUILT PLANS

Fed. Proj. No.

F.E. LT. 511+32
INPL. 15"x 30' CMP.

REMOVE
18" x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

CONST. F.E. RT. 517+00
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.E. LT. 519+75
NO CULV. INPL.

18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

F.M.E. LT. 522+36
INPL. 18" x 30' C.M.P.

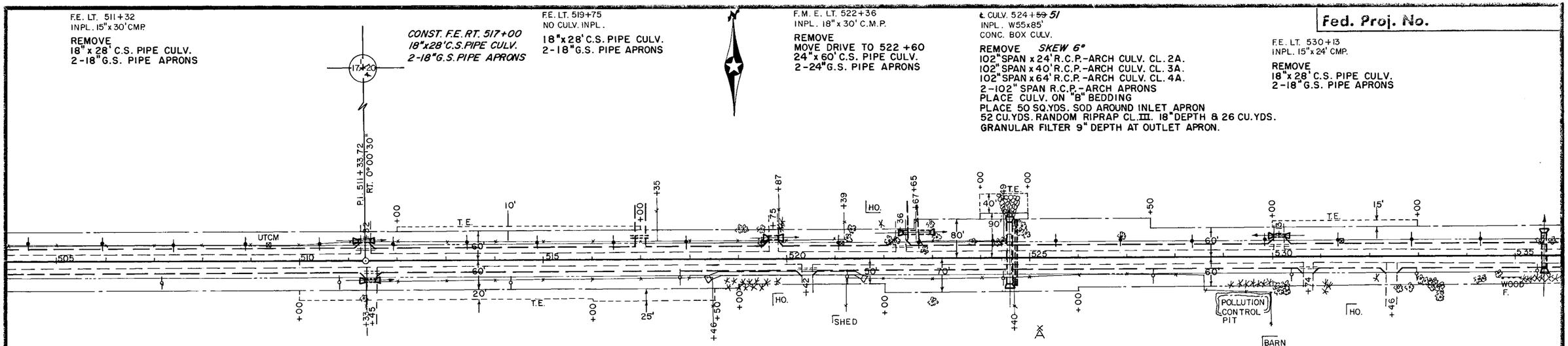
REMOVE
MOVE DRIVE TO 522 +60
24" x 60' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

℄ CULV. 524+~~53~~ 51
INPL. W55x85'
CONC. BOX CULV.

REMOVE SKEW 6°
102" SPAN x 24' R.C.P.-ARCH CULV. CL. 2A.
102" SPAN x 40' R.C.P.-ARCH CULV. CL. 3A.
102" SPAN x 64' R.C.P.-ARCH CULV. CL. 4A.
2-102" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 50 SQ.YDS. SOD AROUND INLET APRON
52 CU.YDS. RANDOM RIPRAP CL.III. 18" DEPTH & 26 CU.YDS.
GRANULAR FILTER 9" DEPTH AT OUTLET APRON.

F.E. LT. 530+13
INPL. 15"x 24' CMP.

REMOVE
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS



F.E. RT. 511+45
INPL. 18"x 28' C.M.P.

REMOVE
32' 18"x ~~28~~' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

RES. DR. RT. 520+42
INPL. 18"x 24' CMP.

REMOVE
NO CULV. REQ'D.

RIGHT
CONST. CULV. ~~LEFT~~ STA. 518+41 TO STA. 521+59
24"x 318' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS
CULV. LENGTH INCLUDES 2-30° BENDS

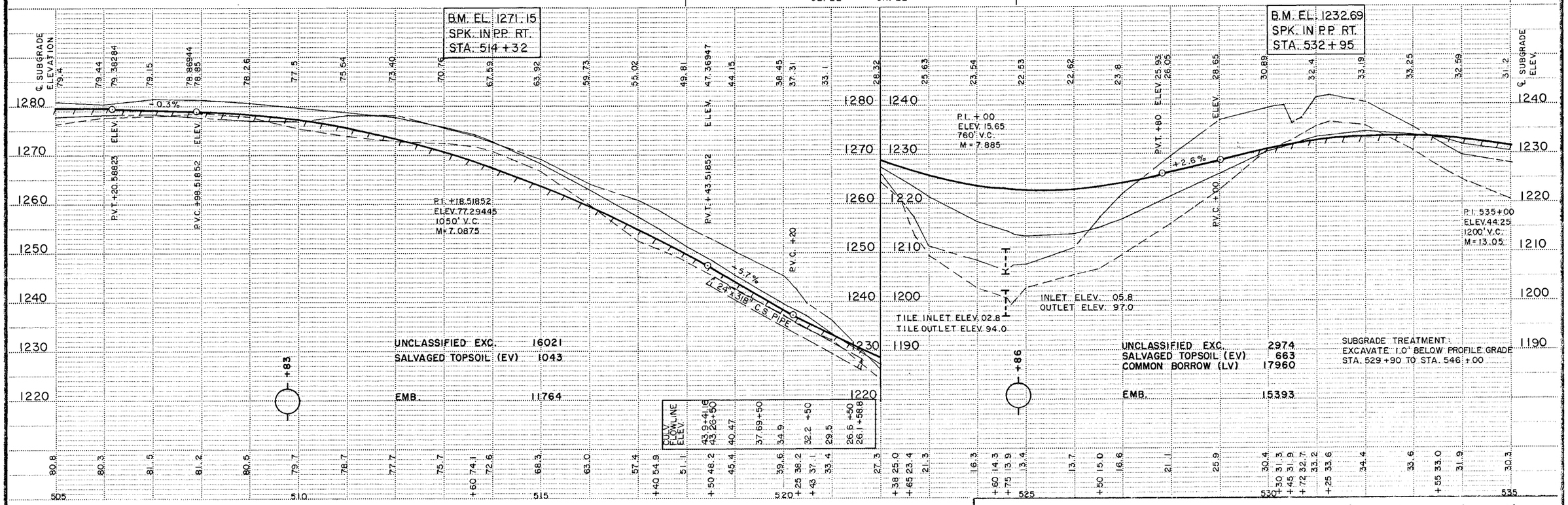
F.M.E. RT. 530+74
INPL. 15"x 24' CMP.

REMOVE
NO CULV. REQ'D.

RES. DR. RT. 532+46
INPL. 15"x 28' C.M.P.

REMOVE
NO CULV. REQ'D.

CONST. 8" DRAIN TILE STA. 524 +~~51~~ 59
8"x 160' C.S. PIPE DRAIN SKEW 6°
4 LIN. FT. C.S. INSPECTION TEE 89' LT.
4 LIN. FT. C.S. INSPECTION TEE 69' RT.
F.&I. APPROVED PLUGS AT INLET & OUTLET



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AS BUILT PLANS

℄ CULV. 535+66
INPL. 18"x46' CMP.
REMOVE
24"x76' R.C. PIPE CULV. CL.2
2-24" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 30 SQ.YDS. SOD
AROUND INLET & OUTLET
APRONS

F.E. LT. 537+21
NO CULV. INPL.
MOVE ENT. TO STA. 536+50
NO CULV. REQ'D.

CR. 102 LT. 537+64
NO CULV. INPL.
~~18"x36' C.S. PIPE CULV.~~
~~2-18" G.S. PIPE APRONS~~
NO CULV. REQ'D.

CONST. 8" TILE CROSSING STA. 547 + ~~48~~ 49
122 8"x ~~135'~~ C.S. PIPE DRAIN ~~74'~~ 61'
4 LIN. FT. C.S. INSPECTION TEE ~~74'~~ LT.
4 LIN. FT. C.S. INSPECTION TEE 59' RT.
F.&I. APPROVED PLUGS AT INLET & OUTLET

℄ CULV. 547+~~53~~ 44
INPL. W33x68'
CONC. BOX
REMOVE CONC. BOX CULV.
48"x102' R.C. PIPE CULV. CL.3
2-48" R.C. PIPE APRONS
PLACE CULV. ON "B" BEDDING
PLACE 37 SQ.YDS. SOD AROUND
INLET APRON
20 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH
& 10 CU.YDS. GRANULAR FILTER 9" DEPTH
AT OUTLET APRON

F.E. LT. 553+07
INPL. 15"x 24' CMP.
REMOVE
18"x28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

℄ CULV. 558+88
INPL. WI06T x 35'
CONC. BOX BR. NO. 6358
REMOVE CONC. BOX CULV.
CONST. ℄ CULV. STA. 558+70.33, 558+88.08 & 559+05.67
3-154" SPAN x82' R.C.P.-ARCH CULV. CL. 2A
6-154" SPAN R.C. PIPE-ARCH APRONS
PLACE CULVERTS ON 164 CU.YDS. (CV) GRANULAR
BEDDING 1.0' DEEP x54' WIDE x 82' LONG.
20 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH ON
SLOPES AROUND INLET APRONS
220 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH ON
SLOPES AND 50' IN FRONT OF OUTLET APRONS
110 CU.YDS. GRANULAR FILTER 9" DEPTH AT
OUTLET APRONS.

℄ CULV. 561+20
INPL. W55 x 36'
CONC. BOX
REMOVE CONC. BOX CULV. 2-30" G.S. PIPE APRONS
CONST. ℄ CULVS. STA. 561+15 & +26
2-65" SPAN x80' R.C.P.-ARCH CULV. CL.2A
4-65" SPAN R.C.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 82 SQ.YDS. SOD AROUND INLET APRONS
48 CU.YDS. RANDOM RIPRAP CL.III 18" DEPTH &
24 CU.YDS. GRANULAR FILTER 9" DEPTH
AT OUTLET APRONS
SKEW CULV. 10°
CONST. TIMBER WEIRS AT INLET APRON

F.E. LT. LT. 562+13
INPL. 24"x 24' CMP.
REMOVE
30"x 28' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

Fed. Proj. No.

RES. DR. LT. 562+80
INPL. 24"x52' CMP.
REMOVE
30"x32' C.S. PIPE CULV.
2-30" G.S. PIPE APRONS

TWP. RD. LT. 563+90
INPL. 24"x30' CMP.
REMOVE
24"x36' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

MH.7 19' LT. STA. 563+91
CONST. MANHOLE DESIGN "C"
RING EL. 29.88 OUTLET EL.W. 25.30
INLET EL. E. 25.40
RING CASTING NO. 700-9
COVER CASTING NO. 712
(28 LIN. FT. 18" R.C. PIPE CL.4 &
1-18" R.C. PIPE APRON OUTLET)

C.B. NO. 10 15.5' RT. STA. 0+40.5 TWP. RD.
CONST. CATCH BASIN DESIGN "C"
GRATE EL. 24.22 OUTL. EL. E. 20.20
GRATE NO. 811 GRATE FRAME NO. 802A
CURB BOX NO. 823A.
(42 LIN. FT. 18" R.C. PIPE CL. 4 &
1-18" R.C. PIPE OUTLET APRON)
APRON ELEV. 19.1

RES. DR. RT. 536+26
INPL. 15"x 24' CMP.
REMOVE
NO CULV. REQ'D.

RES. DR. RT. 1+25 TWP. RD.
NO CULV. INPL.
NO CULV. REQ'D.

TWP. RD. LT. 537+65
INPL. 18"x 32' CMP.
REMOVE
NO CULV. REQ'D.

F.E. LT. 0+40 TWP. RD.
NO CULV. INPL.
MOVE F.E. TO STA. 3+20
NO CULV. REQ'D.

CONST. ℄ CULV. STA. 2+20
TWP. RD.
18"x44' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS
PLACE 21 SQ.YDS. SOD
AROUND INLET &
OUTLET APRONS

℄ CULV. 3+77 TWP. RD.
INPL. 18"x 24' R.C.P.
REMOVE
24"x48' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS
PLACE 30 SQ. YDS. SOD
AROUND INLET & OUTLET APRONS
PLACE DITCH BLOCK AT INLET

EM. E. RT. 553+06
INPL. 18"x 34' CMP.
REMOVE
NO CULV. REQ'D.

CONST. ℄ CULV. STA. 549+85
28"SPAN x 70' R.C.P.-ARCH CULV. CL.2A
2-28" SPAN R.C. PIPE-ARCH APRONS
PLACE 30 SQ. YDS. SOD AROUND INLET
& OUTLET APRONS.

F.E. RT. 560+70
NO CULV. INPL.
MOVE ENT. TO 561+00
NO CULV. REQ'D.

F.E. RT. 560+07
NO CULV. INPL.
MOVE ENT. TO 559+72
NO CULV. REQ'D.

F.E. RT. ~~564+05~~ 563+90
INPL. 24"x24' CMP.
REMOVE
24"x ~~28'~~ 24' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

CONST. F. ENT. RT STA. 554+30
NO CULV. REQ'D.

STREET RT. 564+99
INPL. 18"x 36' CMP.
REMOVE
24"x 36' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

RES. DR. LT. 564+69
INPL. 24"x 26' CMP.
REMOVE
24"x32' C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

CL. 1 — GR. 2

CL. 17 — GR. 17

END CONST. STA. 5+00

B.M. EL. 1226.54
SPK. IN P.P. RT.
STA. 537+34

CL. 15 — GR. 15

B.M. EL. 1124.99
SPK. IN P.P. 31' RT. STA 559+67

SECTION 1 LOT N 17 16 20 21 R 19 W. CORNER

T.E. POWER LINES HIGH VOLTAGE 8048 8' 10" WOOD F. CONC. SHED TWP. RD. WELL HO. CORN CRIB SHED SHED CREAMERY TWP. RD. HO. HO.

℄ SUBGRADE ELEVATION

P.I. 535+00
ELEV. 44.25
1200' V.C.
M = 13.05

INLET EL. 25.7
OUTLET EL. 20.2

-6.1%

NOTE: 700 CU.YDS. UNCLASSIFIED EXC. FROM TOWNSHIP ROAD RIGHT STA. 537+65 TO BE PLACED IN BALANCE STA. 524+86 TO STA. 537+52 AND 5302 CU.YDS. UNCLASSIFIED EXCAVATION TO BE PLACED IN TOWNSHIP ROAD EMBANKMENT AND BALANCE STA. 537+52 TO STA. 558+50

P.I. +00
ELEV. 77.15
400' V.C.
M = 1.05

INLET ELEV. 60.5
OUTLET ELEV. 53.5

TILE INLET ELEV. 57.5
TILE OUTLET ELEV. 50.5

UNCLASSIFIED EXC. 22245
SALVAGED TOPSOIL (EV) 1488
EMB 16745

-4.0%

INLET ELEV. 58.0
OUTLET ELEV. 54.0

SUBGRADE TREATMENT
EXCAVATE 1.0' BELOW PROFILE GRADE
STA. 548+00 TO STA. 554+00
STA. 554+00 TO STA. 564+15

P.I. +16.16161
ELEV. 14.50354
750' V.C.
M = 9.28125

INLET ELEV. 13.7
OUTLET ELEV. 13.0

STORM SEWER GRADES

STORM SEWER OUTLET STA. 563+63 37' LT
ELEV. 24.66
M.H.7 STA. 563+91 19' LT.

18"x 28' R.C. PIPE CL.4

TOP WEIR ELEV. 20.0
INLET ELEV. 17.9
OUTLET ELEV. 17.5

℄ SUBGRADE ELEVATION

STORM SEWER GRADE

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AS BUILT PLANS

RES. DR. LT. 567+12
INPL. 18" x 28' C.M.P.
REMOVE
18" x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

RES. DR. LT. 569+57
INPL. 18" x 108' C.M.P.
REMOVE
NO CULV. REQ'D.

RES. DR. LT. 571+96
INPL. 18" x 36' C.M.P.
REMOVE
NO CULV. REQ'D.

FM. DR. LT. 573+50
INPL. 18" x 20' C.M.P.
REMOVE
NO CULV. REQ'D.

RES. DR. LT. 573+96
INPL. 15" x 28' C.M.P.
REMOVE
NO CULV. REQ'D.

RES. DR. LT. 577+40
INPL. 15" x 24' C.M.P.
REMOVE
NO CULV. REQ'D.

℄ CULV. 580+94
INPL. 30" x 50' C.M.P.
REMOVE
36" SPAN x 70' R.C.P.-ARCH CULV. CL. 2A
2-36" SPAN R.C.P.-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 40 SQ. YDS. SOD AROUND
INLET & OUTLET APRONS

CONST. F. ENT. LT. STA. ~~585+00~~
24" x 28" C.S. PIPE CULV.
2-24" G.S. PIPE APRONS
MOVED TO 584+85

Fed. Proj. No.

FM. ENT. LT. 590+34
INPL. 18" x 32' C.M.P.
REMOVE
18" x 32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

M.H. 6 19' LT. STA. 567+40
CONST. M.H. DESIGN "C"
RING EL. 49.08 OUTLET EL. W. 43.92
INLET EL. W. 44.02 INLET EL. S 44.62
RING CASTING NO. 700-9
COVER CASTING NO. 712
(349 LIN. FT 18" R.C. PIPE CL. 4)
INLET. EL. NE. 44.52

C.B. 9 21' RT. STA. 567+40
CONST. C.B. DESIGN "C"
GR EL. 48.98 OUTLET EL. N. 44.98
GR. NO. 811 GR. FRAM NO. 802 A
CURB BOX NO. 823 A
(40 LIN. FT 12" C.S. PIPE CL. 4)

M.H. 5 ~~29'~~ 15 LT. STA. 567+93
CONST. M.H. DESIGN "C"
RING. EL. 52.76
OUTLET EL. W. 47.25 INLET EL. 47.35
INLET EL. S 47.95 RING CAST. NO. 700-9
COVER CASTING NO. 712
53 (~~54~~ LIN. FT. 18" R.C. PIPE CL. 4)

C.B. 8 21' LT. STA. 567+93
CONST C.B. DESIGN "C"
GR. EL. 52.01 S.
OUTLET EL. ~~NO.~~ 48.01
GR. NO. 811
GR. FRAM NO. 802 A
CURB BOX NO. 823 A
6 (8 LIN. FT 12" R.C. PIPE CL. 4)

M.H. 4 ~~29'~~ 15 LT. STA. 569+30
CONST. M.H. DESIGN "C" W.
35 RING EL. 60.84 OUTLET EL. 54.95
INLET EL. E. 55.30
INLET EL. S. 55.~~30~~60
RING CASTING NO. 700-9 *INL. EL. N. 55.20*
COVER CASTING NO. 712
(137 LIN. FT 18" R.C. PIPE CL. 4)

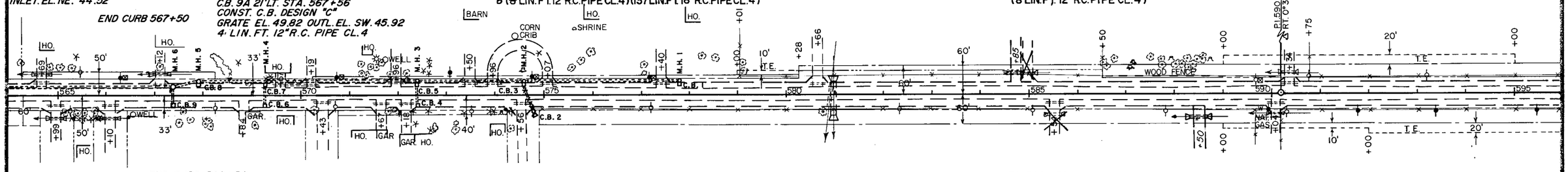
RES. DR. LT. 580+66
INPL. 18" x 32' C.M.P.
REMOVE
NO CULV. REQ'D.

M.H. 1 29' LT. STA. 577+80
CONST M.H. DESIGN "C"
RING EL. 99.00 OUTLET EL. 94.07
INLET EL. SO. 94.17
RING CASTING NO. 700-9
COVER CASTING NO. 712
(320 LIN. FT. 12" R.C. PIPE CL. 4)

C.B. 1 21' LT. STA. 577+80
CONST. C.B. DESIGN "C"
GR. EL. 98.33
OUTLET EL. NO. 94.23
GRATE NO. 811
GRATE FRAM NO. 802 A
CURB BOX NO. 823 A
(8 LIN. FT. 12" R.C. PIPE CL. 4)

END CURB 567+50

C.B. 9A 21' LT. STA. 567+56
CONST. C.B. DESIGN "C"
GRATE EL. 49.82 OUTL. EL. SW. 45.92
4 LIN. FT. 12" R.C. PIPE CL. 4



END CURB 566+50

STREET RT. 566+10
INPL. 18" x 42' C.M.P.
REMOVE
28' 24" x ~~36'~~ C.S. PIPE CULV.
2-24" G.S. PIPE APRONS

C.B. 6 21' RT. STA. 569+30
CONST. C.B. DESIGN "C"
GRATE EL. 60.09
OUTLET EL. W. 56.09 GR. NO. 811
GRATE FRAM NO. 802 A
CURB BOX NO. 823 A
(~~42~~ 36' LIN. FT. 12" R.C. PIPE CL. 4)

RES. DR. RT. 568+84
INPL. 18" x 34' C.M.P.
REMOVE
NO CULV. REQ'D.

C.B. 7 21' LT. STA. 569+30
CONST. C.B. DESIGN "C"
GRATE EL. 60.09
OUTLET EL. N. 55.36 INLET EL. S. 55.71
GR. NO. 811 GR. FRAM NO. 802 A
CURB BOX NO. 823 A
(6 LIN. FT. 15" R.C. PIPE CL. 4)

STREET RT. 570+43
INPL. 18" x 40 C.M.P.
REMOVE
NO CULV. REQ'D.

M.H. 3 29' LT. STA. 572+45
CONST. M.H. DESIGN "C"
RING EL. 78.41 OUTLET EL. W. 72.77
INLET EL. E. 73.12 INLET EL. S. 73.12
RING CASTING NO. 700-9 COVER C.NO. 712
(315 LIN. FT. 15" R.C. PIPE CL. 4)

RES. DR. RT. 571+67
INPL. 15" x 24' C.M.P.
REMOVE
NO CULV. REQ'D.

RES. DR. RT. 572+18
INPL. 15" x 24' C.M.P.
REMOVE
NO CULV. REQ'D.

C.B. 4 21' RT. STA. 572+45
CONST. C.B. DESIGN "C"
GRATE EL. 77.66
OUTLET EL. NO. 73.66
GR. NO. 811 GR. FRAM NO. 802 A
CURB BOX NO. 823 A
(42 LIN. FT. 12" R. C. PIPE CL. 4)

STREET RT. 574+56
INPL. 15" x 24' C.M.P.
REMOVE
NO CULV. REQ'D.

C.B. 5 21' LT. STA. 572+45
CONST. C.B. DESIGN "C"
GR. EL. 77.66
OUTLET EL. NO. 73.18 INLET EL. S. 73.28
GR. NO. 811 GR. FRAM NO. 802 A
CURB BOX NO. 823 A
(8 LIN. FT. 12" R.C. PIPE CL. 4)

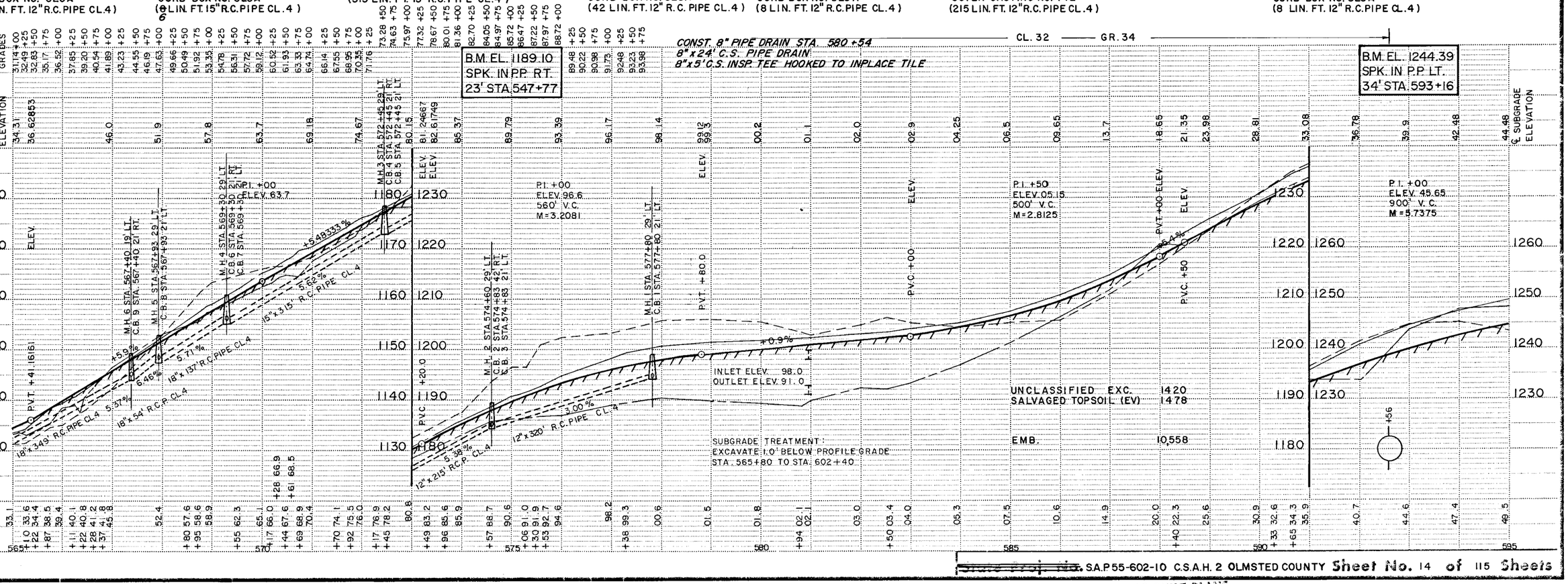
MOVED TO 588+50
F.E. RT. ~~585+64~~
INPL. 15" x 24' C.M.P.
REMOVE
18" x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

M.H. 2 29' LT. STA. 574+60
CONST. M.H. DESIGN "C"
RING EL. 89.31 OUTLET EL. W. 84.48
INLET EL. E. 84.58 INLET EL. S. 84.58
RING CASTING NO. 700-9
COVER CASTING NO. 712
(215 LIN. FT. 12" R.C. PIPE CL. 4)

~~C.B. 2 42' RT. STA. 574+83~~
~~APRON EL. 85.54~~
~~(62 LIN. FT. 12" R.C. PIPE CL.~~
~~4 & 1-12" R.C. PIPE APRON~~
~~INLET)~~

NAT'L. GAS RT. 590+04
INPL. 18" x 30' C.M.P.
REMOVE
18" x 32' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

C.B. 3 21' LT. STA. 574+60
CONST. C.B. DESIGN "C"
GRATE EL. 88.64
OUTLET EL. N. 84.64 INLET EL. S. 84.74
GRATE NO. 811 GRATE FRAM NO. 802 A
CURB BOX NO. 823 A
(8 LIN. FT. 12" R.C. PIPE CL. 4)



AS BUILT PLANS

Fed. Proj. No.

GRAIN ELEVATOR LT. 598+62
NO CULV. INPL.

NO CULV. REQ'D.

GRAIN ELEVATOR LT. 601+73
INPL. 18"x 54' CMP.

REMOVE
NO CULV. REQ'D.

℄ CULV. 604+93
INPL. W64x94'
CONC. BOX

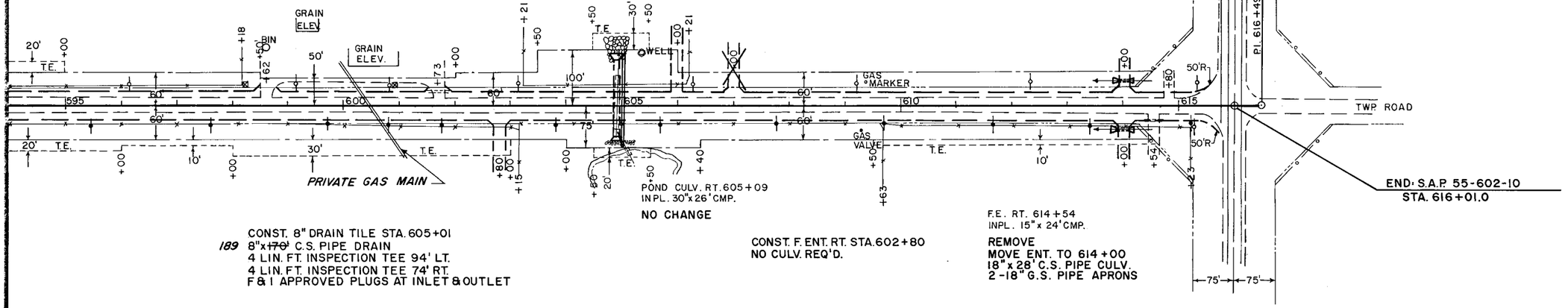
REMOVE CONC. BOX CULV.
102"SPAN x24' R.C.P.-ARCH CULV. CL.2A
102"SPAN x40' R.C.P.-ARCH CULV. CL.3A
102"SPAN x72' R.C.P.-ARCH CULV. CL.4A
2-102" SPAN R.C. PIPE-ARCH APRONS
PLACE CULV. ON "B" BEDDING
PLACE 41 SQ.YDS. SOD AROUND INLET APRON
52 CU.YDS. RANDOM RIPRAP CL. III
26 CU.YDS. GRANULAR FILTER 9" DEPTH AT OUTLET APRON
2' WEIR ON INLET

F.E. LT. 614+80
NO CULV. INPL.

MOVE ENT. TO 614+00
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

T.H.42 LT. 616+01

MOVE TO 606+00
CONST. F. ENT. LT. STA. ~~607+00~~
~~NO CULV. REQ'D.~~
18"x 56' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS



CONST. 8" DRAIN TILE STA. 605+01
189 8"x ~~170'~~ C.S. PIPE DRAIN
4 LIN. FT. INSPECTION TEE 94' LT.
4 LIN. FT. INSPECTION TEE 74' RT.
F & I APPROVED PLUGS AT INLET & OUTLET

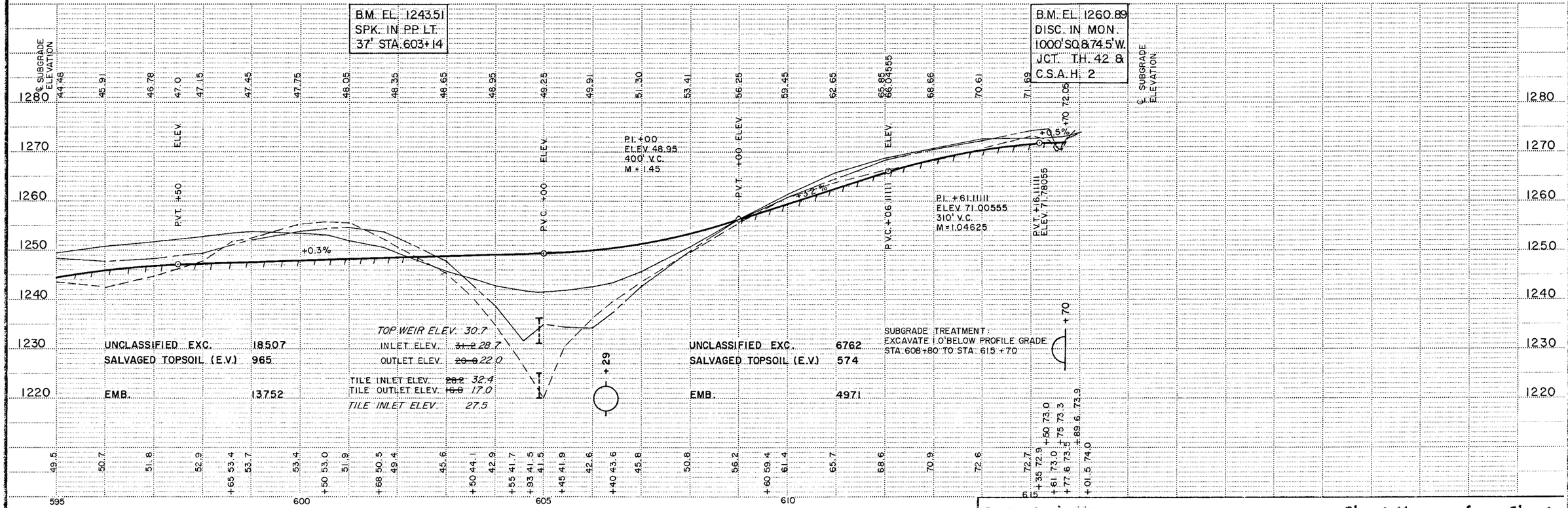
CONST. F. ENT. RT. STA. 602+80
NO CULV. REQ'D.

F.E. RT. 614+54
INPL. 15"x 24' CMP.

REMOVE
MOVE ENT. TO 614+00
18"x 28' C.S. PIPE CULV.
2-18" G.S. PIPE APRONS

B.M. EL. 1243.51
SPK. IN P.P. LT.
37' STA. 603+14

B.M. EL. 1260.89
DISC. IN MON.
1000' SO. & 74.5' W.
JCT. T.H. 42 & C.S.A.H. 2



~~State Proj. No.~~ S.A.P 55-602-10 C.S.A.H. 2 OLMSTED COUNTY **Sheet No.** 15 **of** 115 **Sheets**

AS BUILT PLANS