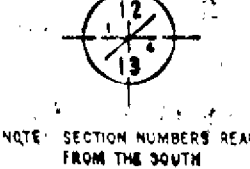
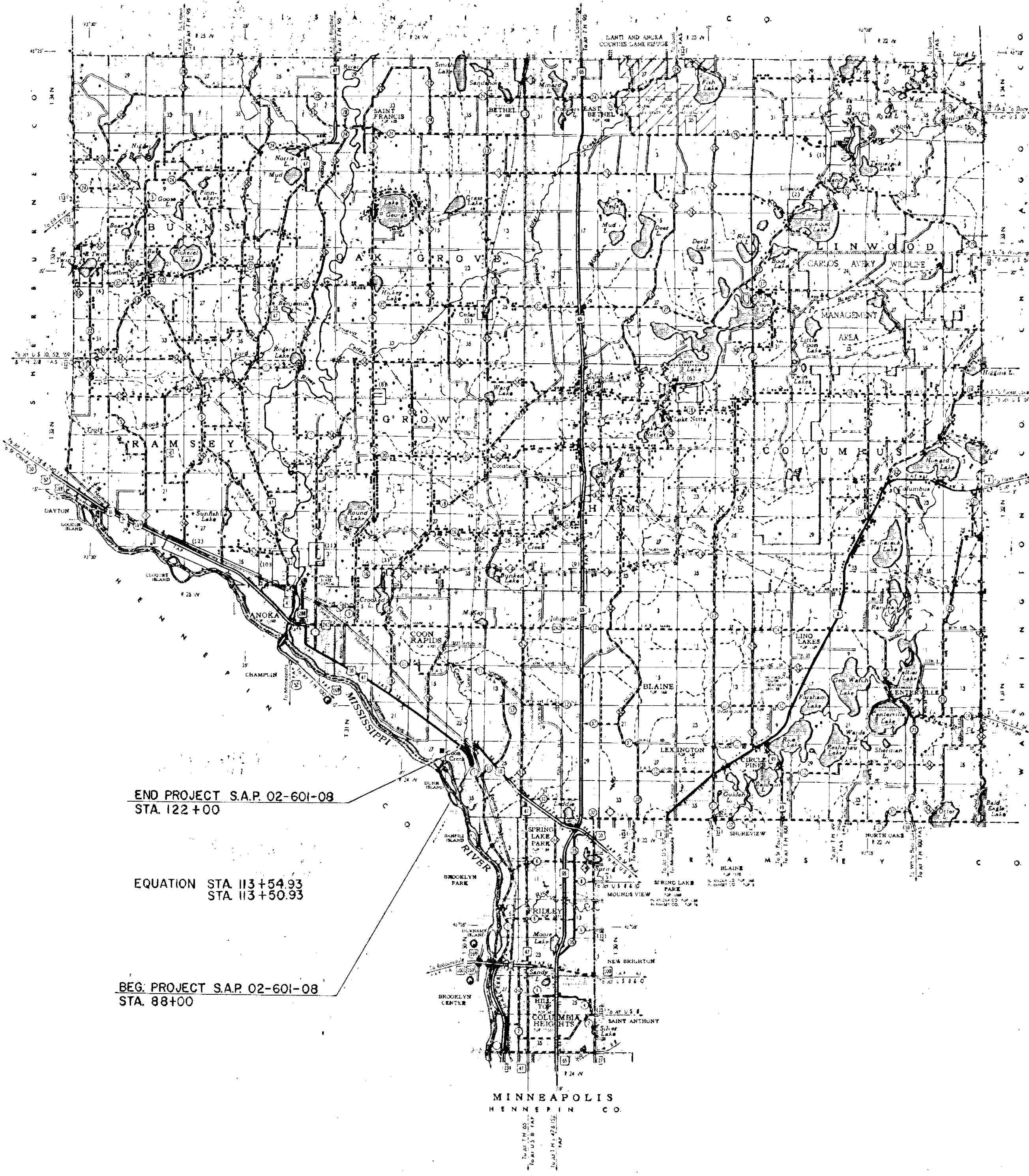


**CONVENTIONAL SIGNS**

STATE LINE		TIMBER	
COUNTY LINE		BRUSH	
TOWNSHIP OR RANGE LINE		ORCHARD	
SECTION LINE		ROCK LEDGE	
QUARTER LINE		SAND	
SIXTEENTH LINE		EDGE OF DIRT	
RIGHT OF WAY LINE		TOE OF EMBANKMENT	
PRESIDENT ROAD PILE LINE		CATCH BASIN	
LIMITED ACCESS		MANHOLE	
PROPERTY LINE (SHOW LAW)		SOCK HOLE	
HEATED HEATED PROPERTY		FIRE HYDRANT	
CORPORATE OR CITY LIMITS		ARC LAMP	
TALKER HIGHWAY CENTER LINE		OTHER LAMP (SHOW TYPE)	
RETAINING WALL		RAILROAD CROSSING SIGN	
STEAM RAILROAD		RAILROAD CROSSING BELL	
ELECTRIC RAILROAD		ELECTRIC WARNING SIGN	
RAILROAD RIGHT-OF-WAY LINE		CROSSING GATE	
CRACK		CATTLE SLAND	
RAPID OR WATERFALL		OVERHEAD SIGN-ON-DIRT	
DEY RUN		UNDERPASS (SHOW TYPE)	
DRAINAGE DITCH		ABUTMENT, WALL & PIER	
HIGH TENSION LINE		BRIDGE	
POWER POLE LINE		CONDUIT	
TELEPHONE OR TELEGRAPH LINE		BUILDING (One Story Frame)	
CONDUIT		CONCRETE (B-STONE T-TILE BRICK ST-STUCCO)	
WIRE FENCE		ROCK PILE	
RAILROAD SHOW FENCE		STONE MONUMENT	
ROAD OR HIGHWAY SHOW FENCE		ROAD STAKE OR PILE	
STONE WALL OR FENCE		NEARBY CORNER	
WATER PIPE			
SEWER PIPE			
WATER TEE			
SEWER TEE			
WATER FIT			
SEWER FIT			
SAND PIT			
CLAY PIT			
ROCK QUARRY			
SPRINGS			
MARKS			



NOTE: SECTION NUMBER READ FROM THE SOUTH



END PROJECT S.A.P. 02-601-08  
STA. 122+00

EQUATION STA. 113+54.93  
STA. 113+50.93

BEG. PROJECT S.A.P. 02-601-08  
STA. 88+00

MINNEAPOLIS  
HENNEPIN CO.

STATE OF MINNESOTA  
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BASE & BITUMINOUS SURFACING

**County State Aid Highway No. 1**

BETWEEN A POINT APPROX. 1140' N. OF FOLEY BLVD. AND A POINT APPROX. 500' S. OF JCT. TH. 10  
A POINT 1597.4' W. & 1592.4' N. OF S.E. COR. To A POINT 865' S. & 620' W. OF THE N  
From SEC. 26, T. 31N., R. 24W. To 1/4 CDR. SEC. 26, T. 31N., R. 24W.

GROSS LENGTH ..... 3396.00 FEET... 0.643 MILES  
BRIDGES LENGTH ..... 35.00 FEET... 0.0 MILES  
EXCEPTIONS LENGTH ..... 0.0 FEET... 0.0 MILES  
NET LENGTH ..... 3396.00 FEET... 0.643 MILES

Plan 1 inch = 200 Feet  
PROFILE: Horiz. 1 inch = 200 Feet, Vert. 1 inch = 20 Feet  
Map: 1 inch = 100 Feet  
WORKING PLANS: Vert. 1 inch = 10 Feet  
Cross Section, 1 inch = 10 FEET  
LAYOUT: Scale 1 inch = 50 Feet

MINN. PROJ.

- INDEX OF SHEETS:**
- Sheet No. 1. Title Sheet & Layout Map
  - " No. 2. Est. Quantities & Typical Sec.
  - " No. 3. TO NO 5. Plan & Profile
  - " No. 6. DETAIL SHEET
  - " NO 7 TO NO 10. CROSS SECTIONS

**DESIGN DATA**

DESIGN SPEED 50 M.P.H.  
A.D.T. (CURRENT YEAR) 7361  
A.D.T. (20 YEAR PROJECTION) 16,930  
GE. FACTOR .50  
STRUCTURAL DESIGN 9 TON.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

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.

COUNTY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
ANOKA COUNTY, REG. NO. 2551  
RECOMMENDED FOR APPROVAL \_\_\_\_\_ 19\_\_\_\_  
DISTRICT ENGINEER  
RECOMMENDED FOR APPROVAL \_\_\_\_\_ 19\_\_\_\_  
APPROVED \_\_\_\_\_ 19\_\_\_\_ STATE AID ENGINEER

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

DISTRICT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

Minn. Project No. \_\_\_\_\_  
S.A.P. 02-601-08  
State Project No. \_\_\_\_\_

**SPECIFICATIONS**  
THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", DATED JAN. 1, 1964, AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS", DATED FEB. 1, 1966 SHALL GOVERN.

**ESTIMATED QUANTITIES**

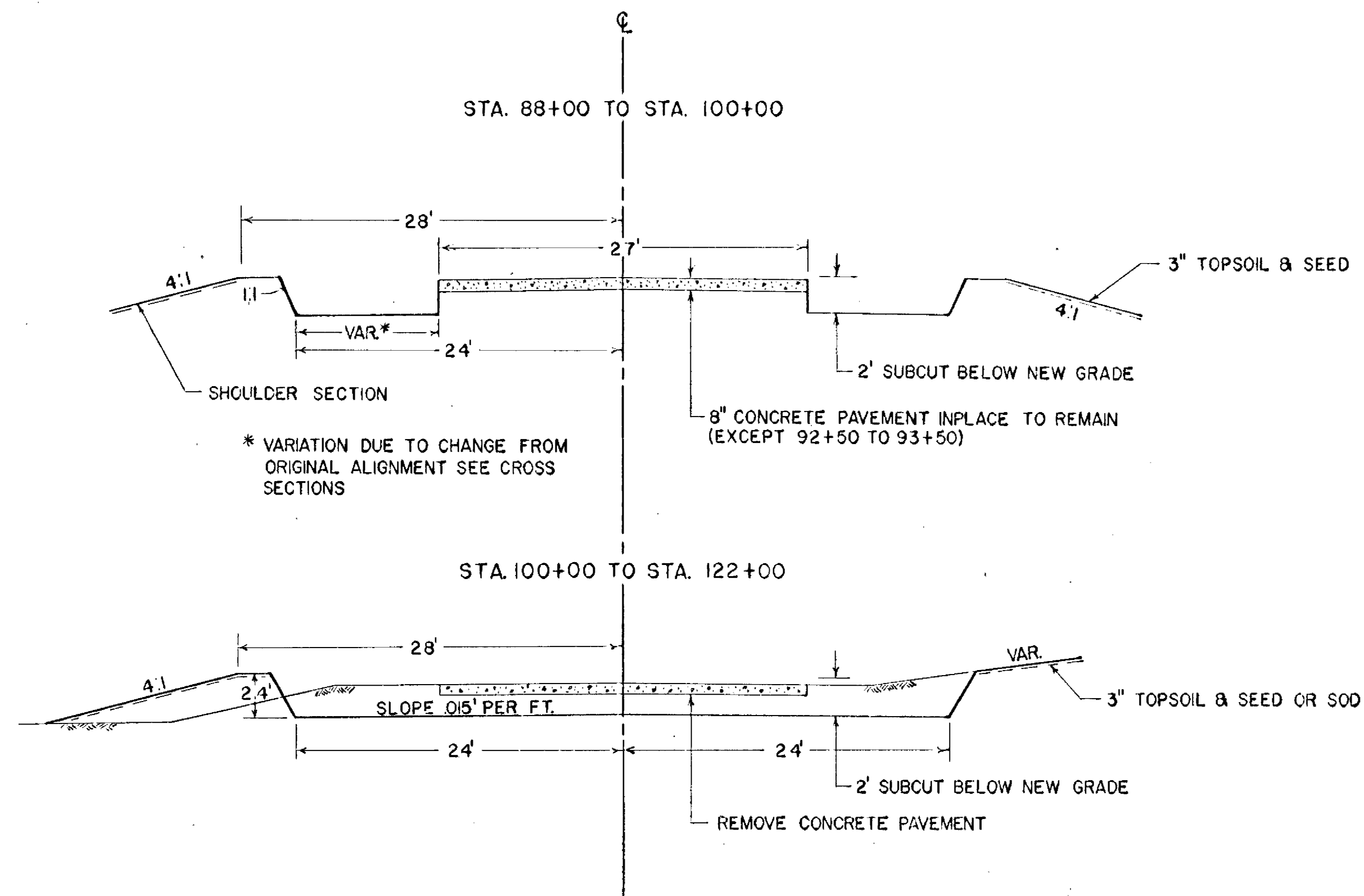
SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2101.501	CLEARING	ACRE			0.4
2101.502	CLEARING	TREE			3
2101.506	GRUBBING	ACRE			0.4
2101.507	GRUBBING	TREE			3
2104.501	REMOVE PORTABLE CULVERTS	LIN. FT.			159
2104.502	REMOVE PAVEMENT	SQ. YD.			6429
2104.509	REMOVE GUARD RAIL	LIN. FT.			3705
2104.519	REMOVE INTEGRANT CURB	LIN. FT.			608
2104.520	REMOVE CONC. BOX CULVERT	STRUCTURE			1
2105.501	CLASS A EXCAVATION	CU. YD.			9073
2105.510	TOPSOIL COVERING	CU. YD.			364
2130.501	WATER	M-GAL.			325
2201.526	GRAVEL SUB-BASE INP. (CLASS-4)	TON			11590
2202.526	GRAVEL BASE INP. (CLASS-5)	TON			4735
2341.501	BITUMINOUS MAT. FOR PRIME COAT	GAL.			5405
2341.502	BITUMINOUS MAT. FOR TACK COAT	GAL.			1800
2341.504	BITUMINOUS MAT. FOR MIXTURE	TON			191
2341.509	WEARING COURSE MIXTURE & FILLER	TON			1432
2341.510	BINDER COURSE MIXTURE	TON			1495
2341.512	LEVELING COURSE MIXTURE	TON			994
2415.503	STRUCTURE EXC. (CLASS U)	CU. YDS.			1852
2415.512	F.B.I. 17' SPAN 3 GA. STRUCTURAL PLATE PIPE ARCH CULVERT	LIN. FT.			210
2451.505	SAND GRAVEL BACK FILL	CU. YDS.			2700
2451.511	SAND GRAVEL SUBFOUNDATION	CU. YDS.			583
2442.501	REMOVE OLD BRIDGE	BRIDGE			1
2461.501	CONCRETE, GRADE Y-MIX NO. 3Y6	CU. YD.			33
2503.512	F.B.I. 15" R.C.P. SEWER CLASS II	LIN. FT.			555
2503.514	F.B.I. 18" C.M.P. SEWER	LIN. FT.			116
2506.507	CONSTRUCT CATCH BASINS (DESIGN C OR G)	LIN. FT.			20
2506.509	CONSTRUCT CATCH BASINS (SPECIAL DESIGN)	STRUCTURE			2
2506.516	F.B.I. CASTING ASSEM. (NEENAH R 3246 C)	ASSEM.			3
2506.516	F.B.I. CASTING ASSEM. (700-7 & 730-6)	ASSEM.			2
2535.501	BITUMINOUS CURB	LIN. FT.			3780
2574.501	ROADSIDE SEEDING	ACRE			12
2576.501	SODDING	SQ. YD.			3/20

**STANDARD DETAIL PLATES**

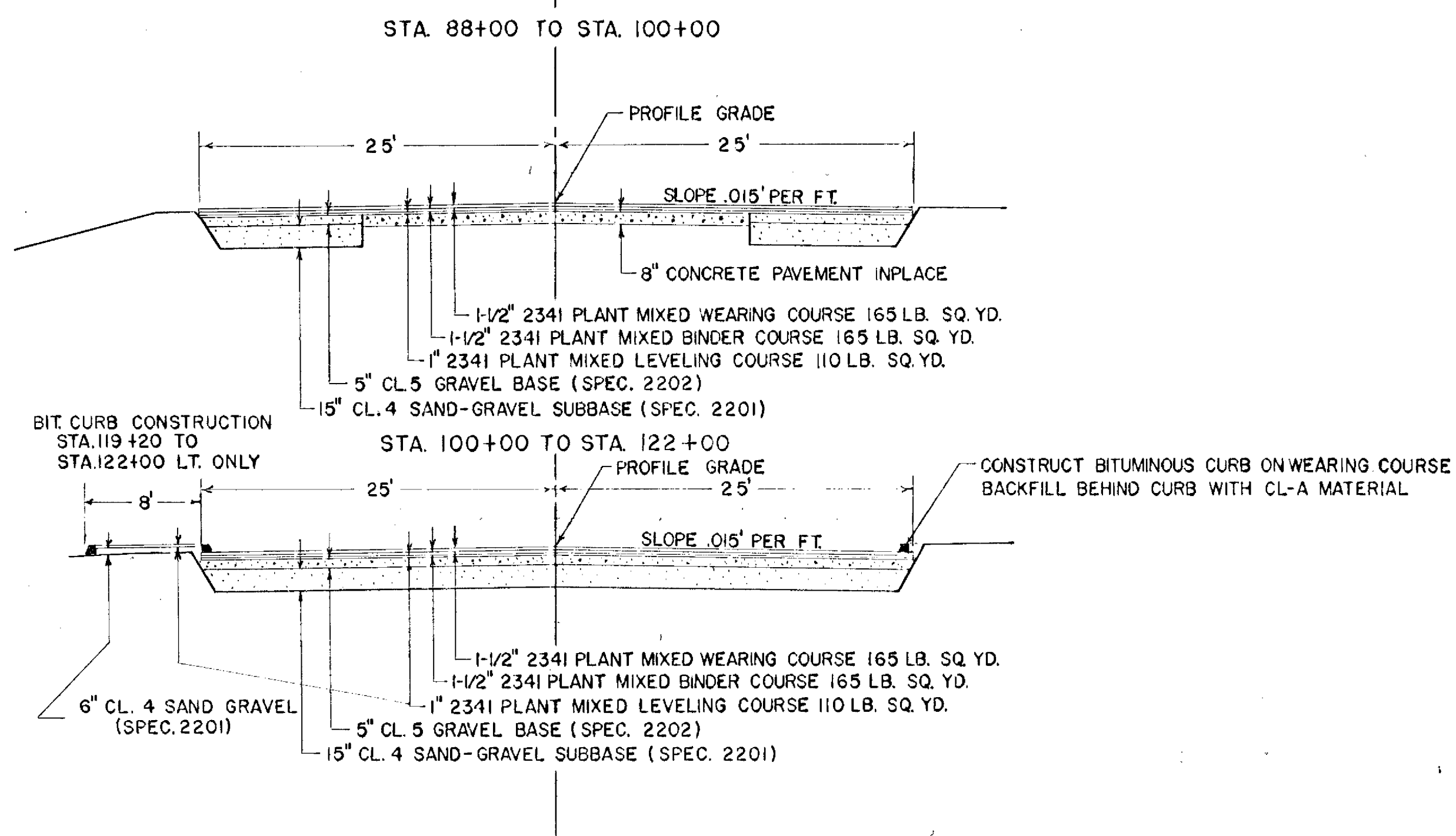
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
4002 C	CATCH BASIN
4006 D	CATCH BASIN
4101 A	RING CASTING
4142 C	BEEHIVE GRATE CASTING
7065 B	BITUMINOUS CURB
8000A-8001	
8003 & 8008A	STANDARD SIGNS & BARRICADES

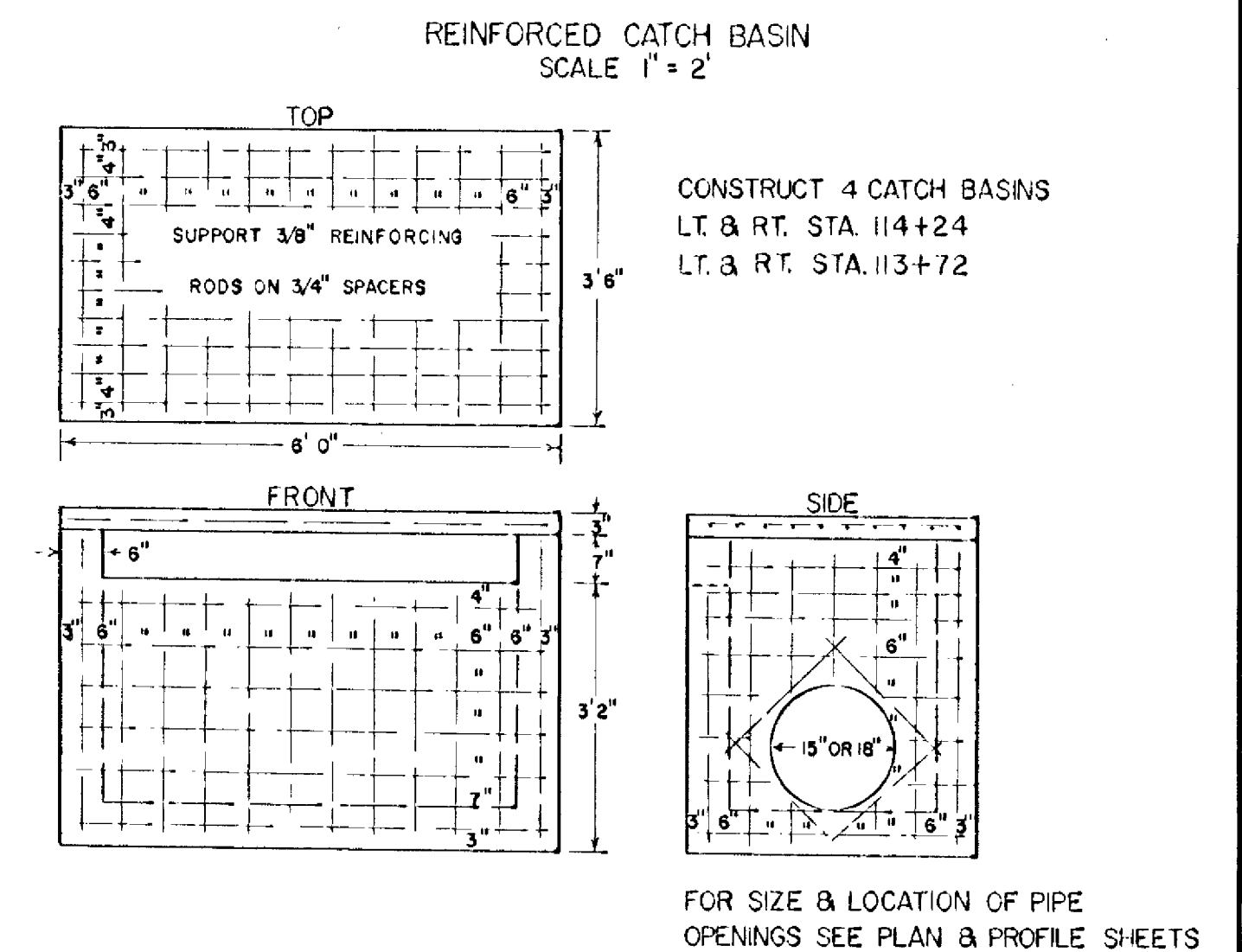
**TYPICAL GRADING SECTIONS**



**TYPICAL BASE & SURFACE SECTIONS**

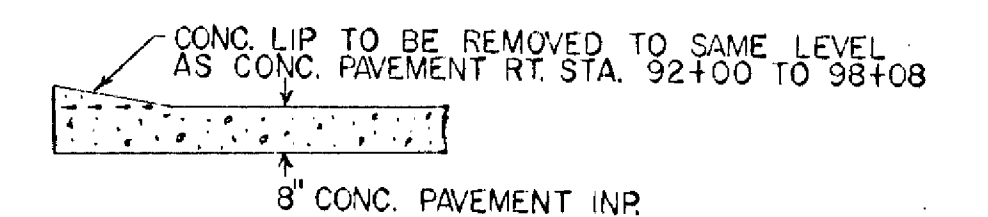


**SPECIAL DETAILS**



MATERIAL LIST PER C.B.  
 3/4\"/>

ITEM NO. 2104.519 REMOVE INTEGRANT CURB



**BASIS OF PLANNED QUANTITIES**

WATER 20 GAL. PER TON OF AGGREGATE  
 GRAVEL SUB-BASE 140 LB. PER CU. FT. DRY DENSITY 3% MOISTURE IN PIT  
 GRAVEL BASE 145 LB. PER CU. FT. DRY DENSITY 3% MOISTURE IN PIT  
 BIT. MATL. FOR PRIME COAT 0.3 GAL. PER SQ. YD.  
 BIT. MATL. FOR TACK COAT 0.05 GAL. PER SQ. YD.  
 BIT. MATL. FOR MIX 2341 LEVELING COURSE 4.5% OF MIXTURE BY WT.  
 BIT. MATL. FOR MIX 2341 BINDER COURSE 4.5% OF MIXTURE BY WT.  
 BIT. MATL. FOR MIX 2341 WEARING COURSE 5.5% OF MIXTURE BY WT.  
 BIT. MIXTURE FOR 2341 LEVELING COURSE 110 LB. PER SQ. YD.  
 BIT. MIXTURE FOR 2341 BINDER COURSE 165 LB. PER SQ. YD.  
 BIT. MIXTURE FOR 2341 WEARING COURSE 165 LB. PER SQ. YD.

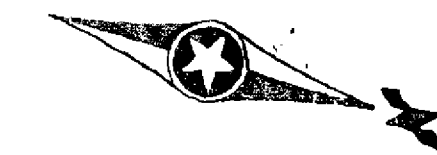
Minn. Project No. \_\_\_\_\_ S.A.P. 02-601-08  
 State Project No. \_\_\_\_\_

B.M. NO. 1 ELEV. 882.59  
SPIKE IN 12" POPLAR 70' LT. 87+00

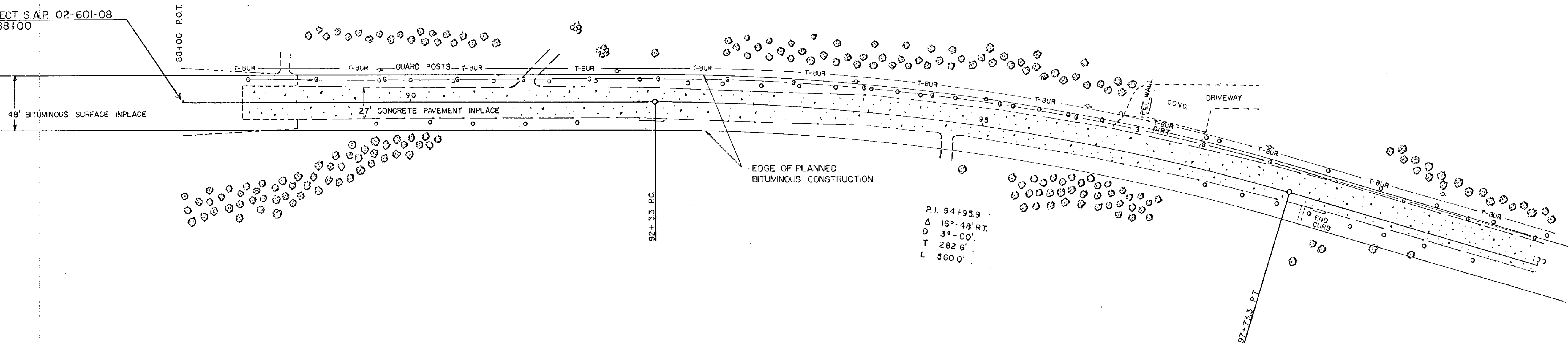
STA. 89+70 TO 96+18  
REMOVE GUARD RAIL WITH CABLE  
648' LT.

B.M. NO. 2 ELEV. 878.04  
SPIKE IN 3RD. WOOD POST  
FROM TOP HOLLOW DALE APP.

STA. 96+91 TO 99+05  
REMOVE GUARD RAIL WITHOUT CABLE  
214' LT.



BEGIN PROJECT S.A.P. 02-601-08  
P.O.T. STA. 88+00

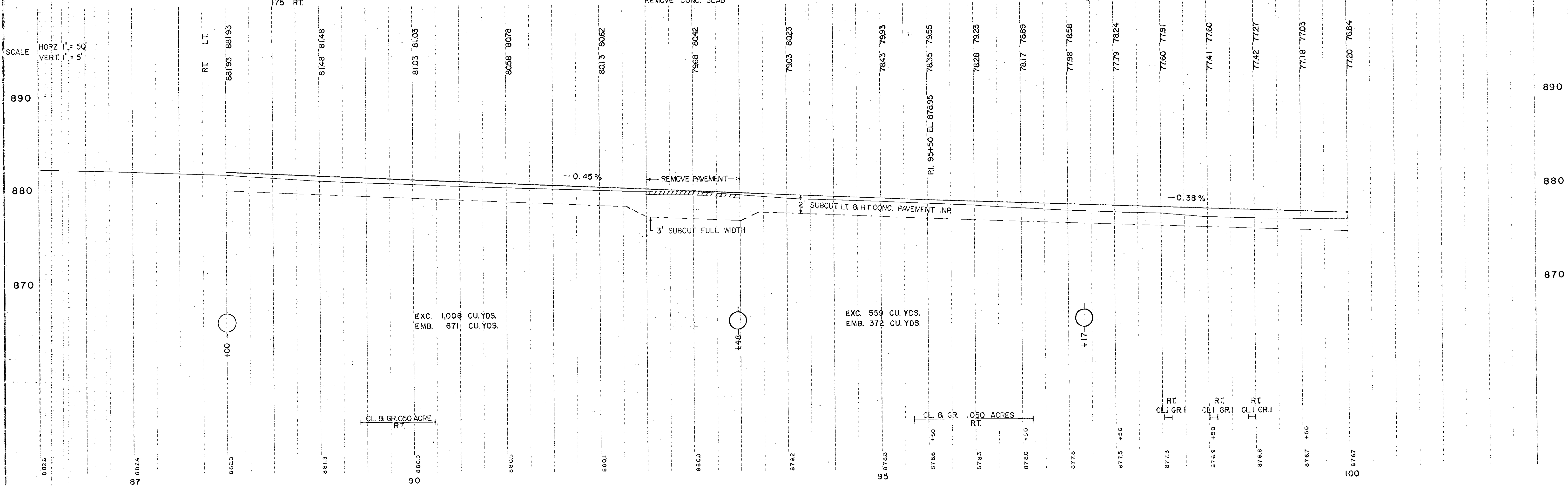


STA. 89+70 TO 91+45  
REMOVE GUARD RAIL WITHOUT CABLE  
175' RT.

STA. 92+50 TO 93+50  
REMOVE CONC. SLAB

STA. 97+00 TO 99+44  
REMOVE GUARD RAIL WITHOUT CABLE  
244' RT.

SCALE  
HORZ. 1" = 50'  
VERT. 1" = 5'



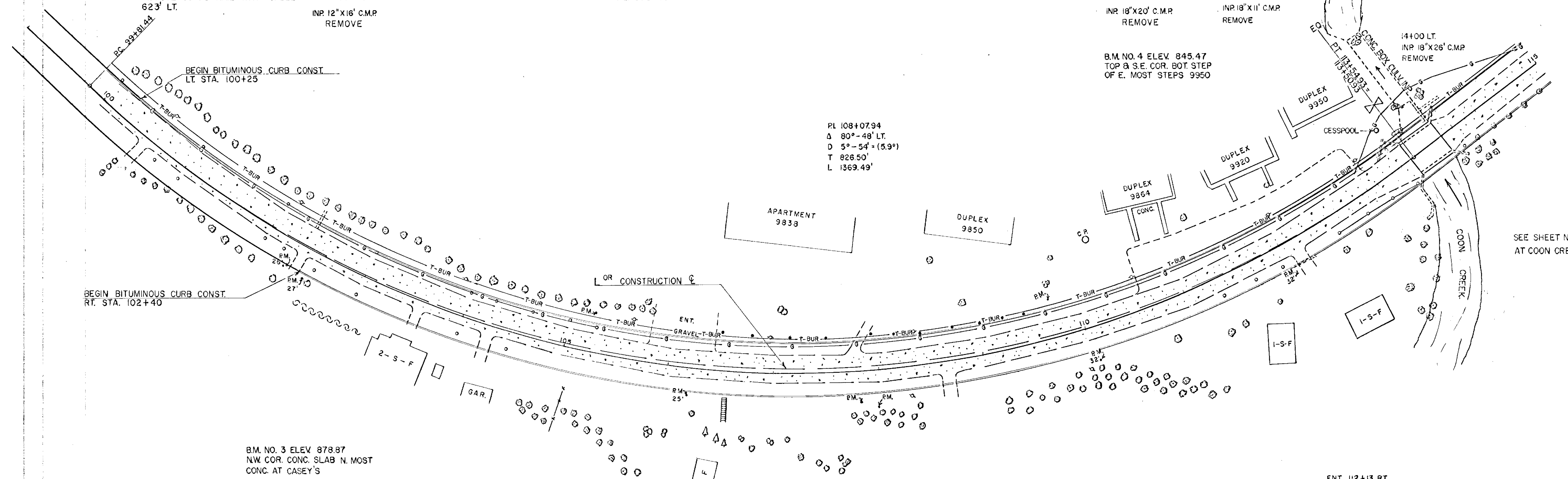
STA. 99+05 TO 105+28  
REMOVE GUARD RAIL WITH CABLE  
623' LT.  
102+39 LT.  
INP. 12"X16' C.M.P.  
REMOVE

STA. 100+00 TO 120+43  
REMOVE CONC. SLAB

113+24 LT. OFFTAKE  
INP. 18"X20' C.M.P.  
REMOVE  
113+70 LT.  
INP. 18"X11' C.M.P.  
REMOVE

B.M. NO. 4 ELEV. 845.47  
TOP & S.E. COR. BOT. STEP  
OF E. MOST STEPS 9950

PL 108+07.94  
Δ 80°-48' LT.  
D 5°-54' (5.9°)  
T 826.50'  
L 1369.49'



SEE SHEET NO. 6 FOR DETAIL  
AT COON CREEK

B.M. NO. 3 ELEV. 878.97  
NW. COR. CONC. SLAB N. MOST  
CONC. AT CASEY'S

STA. 100+74 TO 102+18  
REMOVE GUARD RAIL WITH CABLE  
144' RT

STA. 102+54 TO 104+48  
REMOVE GUARD RAIL WITHOUT CABLE  
194' RT

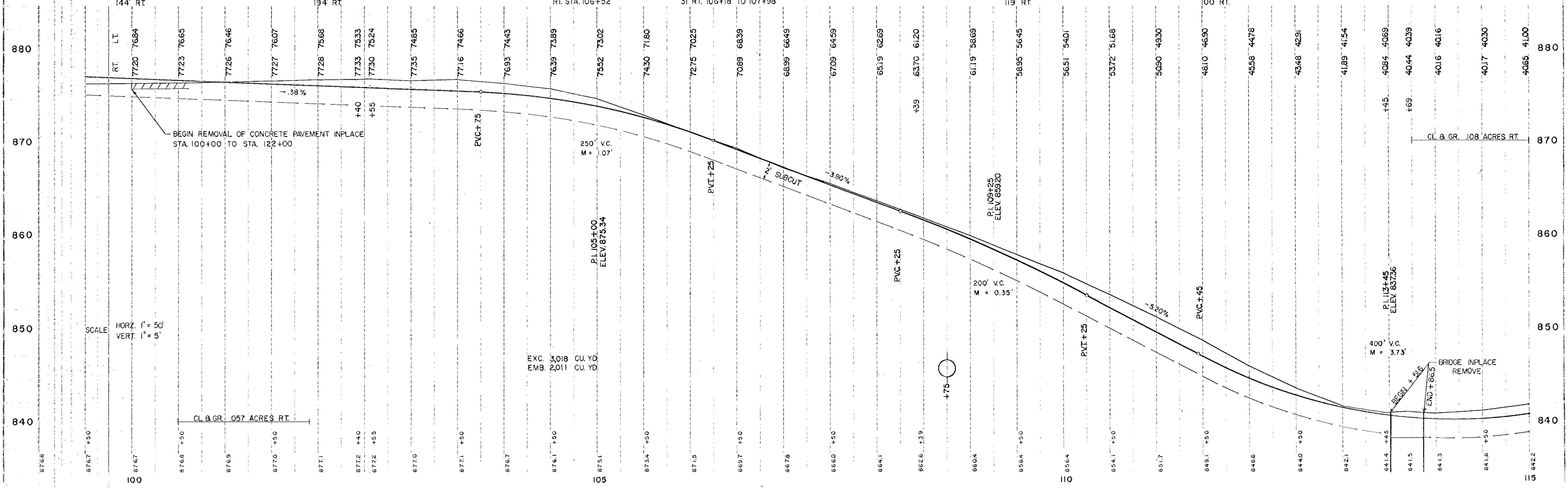
CONST. STEPS  
RT. STA. 106+52

CONST. RETAINING WALL  
3' RT. 106+18 TO 107+98

STA. 111+34 TO 112+53  
REMOVE GUARD RAIL WITHOUT CABLE  
119' RT

ENT. 112+13 RT.  
INP. 12"X24' C.M.P.  
REMOVE

STA. 112+53 TO 113+53  
REMOVE GUARD RAIL WITH CABLE  
100' RT.



SCALE  
HORIZ. 1"=50'  
VERT. 1"=5'

EXC. 3,018 CU. YD.  
EMB. 2,011 CU. YD.

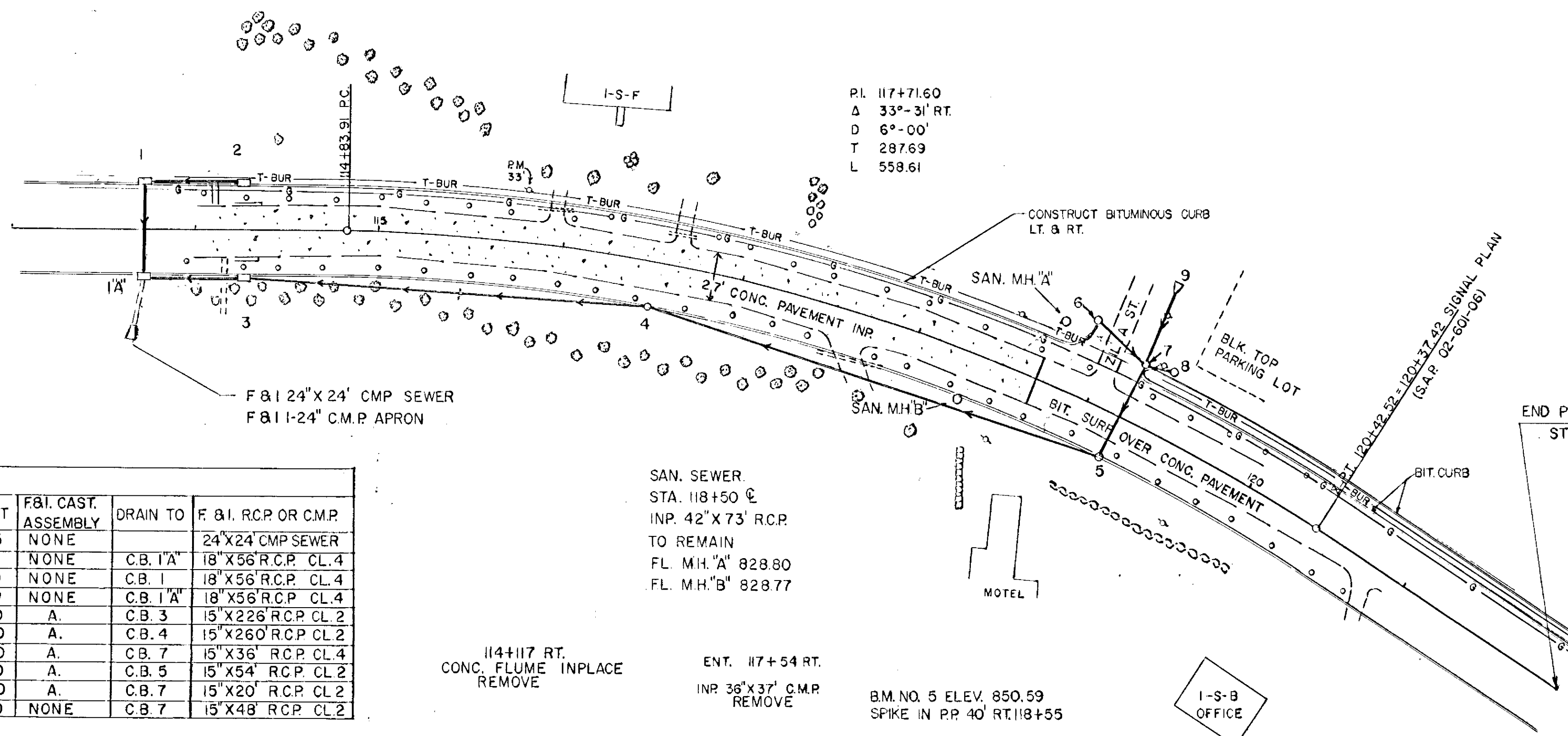
114+09 LT.  
INP. 24" X 26" C.M.P.  
REMOVE

ENT. 115+96 LT.  
INP. 18" X 20" C.M.P.  
REMOVE

ENT. 116+58 LT.  
INP. 12" X 16" C.M.P.  
REMOVE

STA. 114+07 TO 118+84  
REMOVE GUARD RAIL WITHOUT CABLE  
477' LT.

STA. 119+30 TO 120+25  
REMOVE GUARD RAIL WITHOUT CABLE  
95' LT.

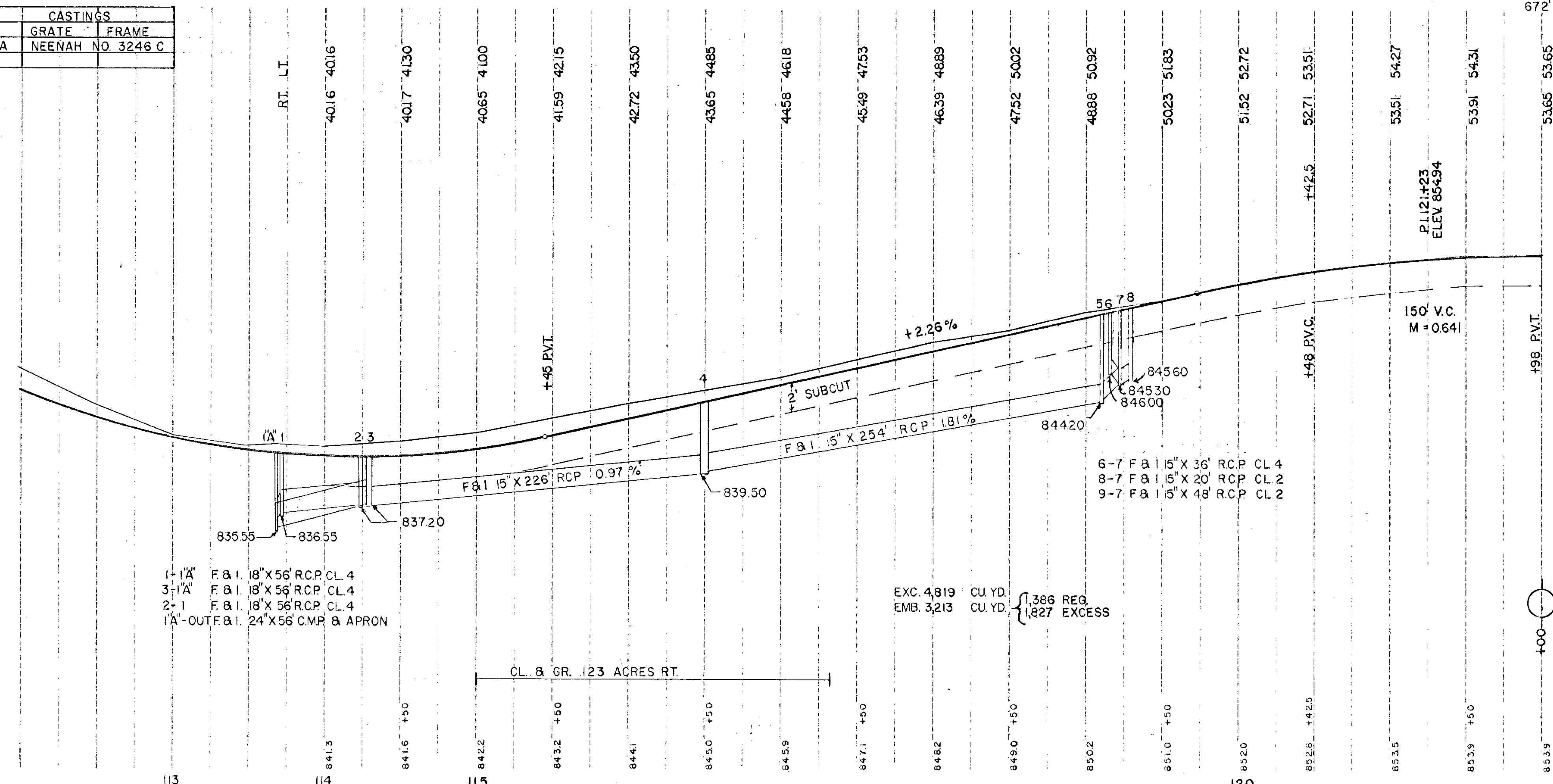


STORM SEWER SYSTEM										
NO.	STATION	LOCATION	TYPE	DESIGN	LIN. FT.	TOP CASTING	OUTLET	F&I CAST. ASSEMBLY	DRAIN TO	F & I. RCP OR C.M.P.
1	113+72	25' RT.	C.B.	SPECIAL2		840.50	835.55	NONE		24" X 24" C.M.P. SEWER
2	114+24	25' LT.	C.B.	SPECIAL2		839.90	837.20	NONE	C.B. 1	18" X 56" R.C.P. CL. 4
3	114+24	25' RT.	C.B.	SPECIAL2		839.90	837.20	NONE	C.B. 1	18" X 56" R.C.P. CL. 4
4	116+50	24' RT.	C.B. 4	C.O.R.G.	4.0	843.50	839.50	A.	C.B. 3	15" X 226" R.C.P. CL. 2
5	119+20	24' RT.	C.B. 4	C.O.R.G.	4.8	849.00	844.20	A.	C.B. 4	15" X 260" R.C.P. CL. 2
6	118+90	43' LT.	C.B. 4	C.O.R.G.	4.7	850.70	846.00	A.	C.B. 7	15" X 36" R.C.P. CL. 4
7	119+20	30' LT.	C.B. 4	C.O.R.G.	5.2	850.50	845.30	A.	C.B. 5	15" X 54" R.C.P. CL. 2
8	119+35	35' LT.	C.B. 4	C.O.R.G.	5.3	850.90	845.60	A.	C.B. 7	15" X 20" R.C.P. CL. 2
9	119+20	80' LT.	C.B. 4	APRON		851.00		NONE	C.B. 7	15" X 48" R.C.P. CL. 2

1. MEASURED TO THE FRONT
2. SEE SHEET NO. 2 FOR DESIGN
3. FRONT OPENING
4. MODIFY TO ACCOMMODATE NEENAH CASTING

CASTINGS	
GRATE	FRAME
A	NEENAH NO. 3246 C

SCALE: HORIZ 1" = 50'  
VERT 1" = 5'

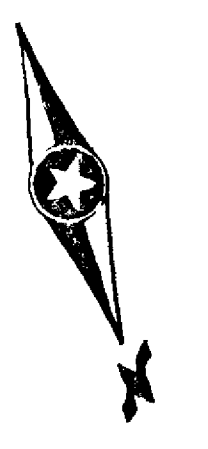


- 1- 1" F & I. 18" X 56" R.C.P. CL. 4
- 3- 1" F & I. 18" X 56" R.C.P. CL. 4
- 2- 1" F & I. 18" X 56" R.C.P. CL. 4
- 1" A" - OUT F & I. 24" X 56" C.M.P. & APRON

EXC. 4,819 CU. YD.  
EMB. 3,213 CU. YD.  
{ 1,386 REG.  
1,827 EXCESS

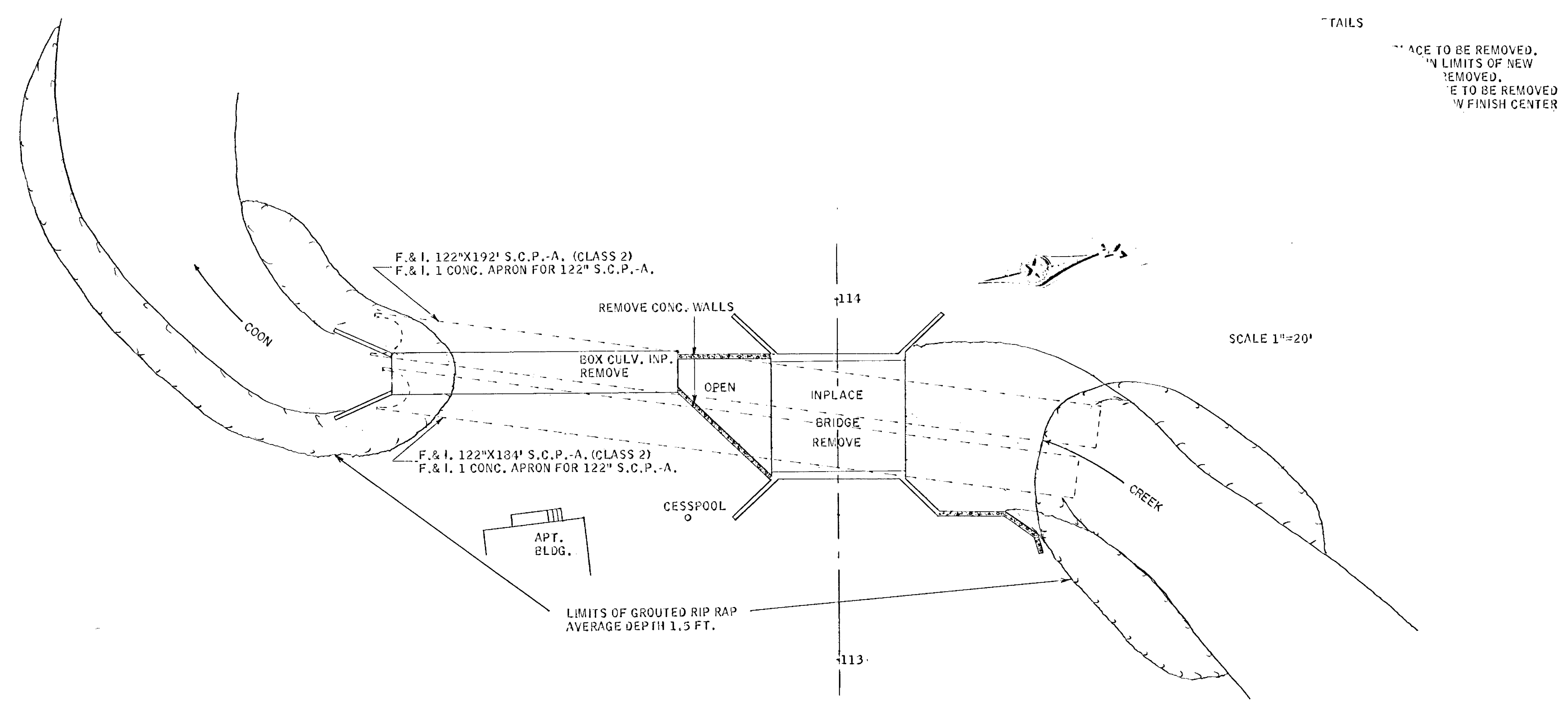
CL. & GR. 123 ACRES RT.

STA. 113+97 TO 120+69  
REMOVE GUARD RAIL WITHOUT CABLE  
672' RT.



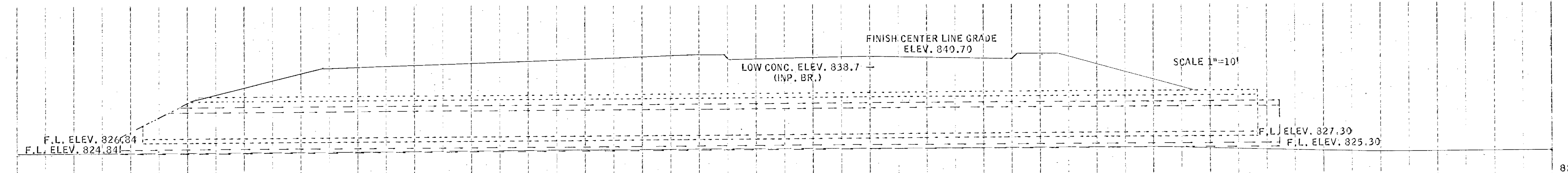
DRAWN BY: [illegible]  
 CHECKED BY: [illegible]  
 DATE: [illegible]

DRAWN BY: [illegible]  
 CHECKED BY: [illegible]  
 DATE: [illegible]



TAILS  
 SPACE TO BE REMOVED,  
 IN LIMITS OF NEW  
 REMOVED,  
 E TO BE REMOVED  
 W FINISH CENTER

SCALE 1"=20'



SCALE 1"=10'

820.

820

100

S.P. 02-601-08  
 SHEET 6 OF 10 SHEETS

S.A.P. 02-601-08

SHEET 6 OF 10 SHEETS