

# MINNESOTA DEPARTMENT OF TRANSPORTATION

## CONSTRUCTION PLAN FOR GRADING, BASE & BITUMINOUS

LOCATED ON CTY. RD. # 83 FROM U.S. # 10 TO A POINT 40' BEYOND C. OF 161<sup>ST</sup> AVE. N.

CTY. PROJ. NO. 87-04-83  
 MINN. PROJ. NO. \_\_\_\_\_  
 GROSS LENGTH 10419 FEET 1.97 MILES  
 BRIDGES-LENGTH FEET MILES  
 EXCEPTIONS-LENGTH FEET MILES  
 NET LENGTH 10419 FEET 1.97 MILES  
 MILE POINT N/A TO MILE POINT N/A

STATE PROJ. NO. \_\_\_\_\_  
 MINN. PROJ. NO. \_\_\_\_\_  
 GROSS LENGTH FEET MILES  
 BRIDGES-LENGTH FEET MILES  
 EXCEPTIONS-LENGTH FEET MILES  
 NET LENGTH FEET MILES  
 MILE POINT TO MILE POINT

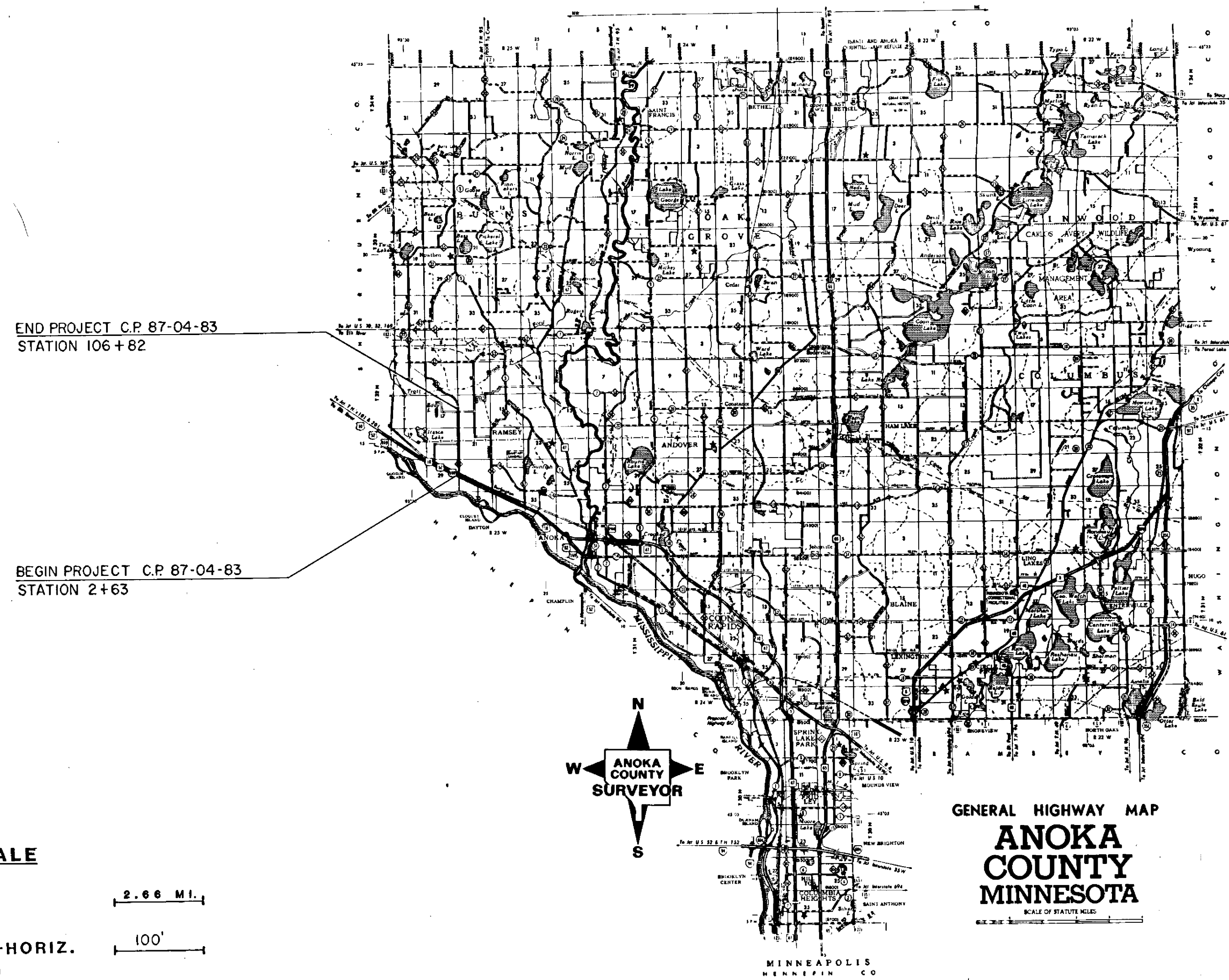
FED. PROJ. NO. \_\_\_\_\_

### GOVERNING SPECIFICATIONS

THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR CONSTRUCTION" AND SUPPLEMENTAL SPECIFICATIONS, DATED MAY 19, 1987, SHALL GOVERN

### INDEX

SHEET NO. 1	TITLE SHEET & INDEX MAP
" 2	ESTIMATED QUANTITIES & MISC. CHARTS
" 3	DRAINAGE & MISC. CHARTS
" 4	TYPICAL SECTIONS & CONST. DETAILS
" 5	EROSION CONTROL
" 6-14	PLAN & PROFILE
" 15	DITCH CONSTRUCTION STA. 65+77 RT.
" 16-35	CROSS SECTIONS



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 Apr. 13, 1988 REG. NO. 6549 ENGR. Paul K. Lund  
 COUNTY ENGINEER

DESIGN SQUAD \_\_\_\_\_

Right of Way Approval	DIRECTOR, RIGHT OF WAY OPERATIONS	19
Recommended for Approval		19
Recommended for Approval		19
Recommended for Approval	DISTRICT ENGINEER	19
Recommended for Approval	TRANSPORTATION PLANS ENGINEER	19
Recommended for Approval	DESIGN SERVICES DIRECTOR	19
Approved	ASSISTANT DIVISION DIRECTOR TECHNICAL SERVICES DIVISION	19

DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 APPROVED  
 DIVISION ADMINISTRATOR DATE

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO. AREA JOB

_____	_____	_____
_____	_____	_____
_____	_____	_____

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE 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 \_\_\_\_\_ REG. NO. \_\_\_\_\_

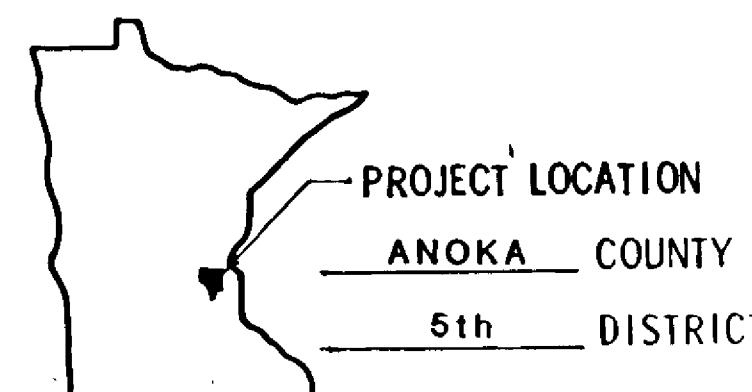
STATE AID PROJ. NO. \_\_\_\_\_ COUNTY PROJ. NO. 87-04-83  
 STATE PROJ. NO. \_\_\_\_\_ SHEET NO. 1 OF 35 SHEETS

SCALE

INDEX MAP	2.66 MI.
PLAN & PROFILE	HORIZ. 100'
	VERT. 10'
CROSS SECTIONS	10'

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

DESIGN DATA  
 Design 9 Ton  
 Design Speed 55 MPH  
 Based on STOPPING Sight Distance  
 Height of eye 3.5' Height of object 0.50'  
 % Design Speed not achieved at:  
 = 600-1,100 STA. TO STA. MPH  
 = A-3 50% STA. TO STA. MPH



STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	1	
2031.501	FIELD OFFICE, TYPE-D	EACH	1	
2101.501	CLEARING	ACRE	3.15	
2101.502	CLEARING	TREE	167	
2101.506	GRUBBING	ACRE	3.2	
2101.507	GRUBBING	TREE	151	
2104.501	REMOVE CULVERT PIPE	LIN.FT.	136	
2104.505	REMOVE BITUMINOUS PAVEMENT (P)	SQ.YD.	27835	
2104.513	SAWING BITUMINOUS PAVEMENT	LIN.FT.	454	
2104.521	SALVAGE 15' C.M.P. CULVERT	LIN.FT.	396	
2104.521	SALVAGE FENCE	LIN.FT.	4264	
2104.523	SALVAGE 15' C.M.P. APRONS	EACH	4	
0557.603	INSTALL FENCE	LIN.FT.	4064	
2105.501	COMMON EXCAVATION (P)	CU.YD.	40715	
2105.505	MUCK EXCAVATION	CU.YD.	821	
2105.521	GRANULAR BORROW (EV)	CU.YD.	5716	
2105.525	TOPSOIL BORROW (LV)	CU.YD.	556	
2105.535	SALVAGED TOPSOIL (LV)	CU.YD.	362	
2130.501	WATER	M-GALLONS	300	
2211.503	AGGREGATE BASE PLACED, CLASS 5A	CU.YD.	11429	
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	635	
2331.510	BINDER COURSE MIXTURE	TON	4620	
2331.514	BASE COURSE MIXTURE	TON	4710	
2331.516	SHOULDER MIXTURE	TON	2150	
2580.501	TEMPORARY LANE MARKING	RD.STA.	312	
0331.601	2" THICK WEARING COURSE MIXTURE	SQ.YD.	1100	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	150	
2341.508	WEARING COURSE MIXTURE	TON	2300	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	3670	
2501.511	15' C.M. PIPE CULVERT	LIN.FT.	742	
2501.511	18' C.M. PIPE CULVERT	LIN.FT.	366	
2501.515	15' C.M. PIPE APRONS	EACH	38	
2501.515	18' C.M. PIPE APRONS	EACH	14	
2501.515	18' R.C. PIPE APRONS	EACH	2	
2501.515	24' R.C. PIPE APRONS	EACH	2	
2501.521	22' SPAN R.C. PIPE-ARCH CULVERT	LIN.FT.	120	
2501.525	22' SPAN R.C. PIPE-ARCH APRONS	EACH	4	
2501.561	18' R.C. PIPE CULVERT, DESIGN 3006	LIN.FT.	78	
2501.561	24' R.C. PIPE CULVERT, DESIGN 3006	LIN.FT.	62	
2501.571	INSTALL 15' C.M. PIPE CULVERT	LIN.FT.	44	
2535.501	BITUMINOUS CURB	LIN.FT.	985	
2573.501	BALE CHECK	EACH	40	
2573.508	BITUMINOUS LINED FLUME	SQ.YD.	42	
2575.501	ROADSIDE SEEDING (P)	ACRE	12.5	
2575.502	SEED, MIXTURE NO. 900	POUND	563	
2575.505	SODDING TYPE EROSION CONTROL	SQ.YD.	6154	
2575.511	MULCH MATERIAL, TYPE-1	TON	25	
2575.519	DISC ANCHORING (P)	ACRE	12.5	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-10-10	TON	3.2	

STANDARD PLATES

PLATE NO.	DESCRIPTION
0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 K	REINFORCED CONCRETE PIPE
3006 F	GASKET JOINT FOR R.C. PIPE
3014 J	REINFORCED CONCRETE PIPE ARCH DETAIL
3040 F	CORRUGATED METAL PIPE CULVERT
3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3123 I	METAL APRON FOR C.S. PIPE
3145 E	CONCRETE PIPE TIES
3221 C	CORRUGATED STEEL PIPE COUPLING BAND
7065 C	BITUMINOUS CURB
8000 I	STANDARD BARRICADES
9000 B	APPROACHES AND ENTRANCES
9102 C	SODDING AT PIPE CULVERT ENDS

BASIS OF PLANNED QUANTITIES

Fed. Project No. \_\_\_\_\_

- 2331 PLANT MIXED BASE AND BINDER COURSE.  
BITUMINOUS MIXTURE 110 LBS./SQ.YD. PER 1" THICKNESS.  
BITUMINOUS MATERIAL FOR MIXTURE 5.3% BY WEIGHT.
- 2331 PLANT MIXED SHOULDER COURSE.  
BITUMINOUS MIXTURE 110 LBS./SQ. YD. PER 1" THICKNESS.  
BITUMINOUS MATERIAL FOR MIXTURE 6.5% BY WEIGHT.
- 2341 PLANT MIXED WEARING COURSE.  
BITUMINOUS MIXTURE 110 LBS./SQ.YD. PER 1" THICKNESS.  
BITUMINOUS MATERIAL FOR MIXTURE 6.5% BY WEIGHT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT.  
0.05 GALLON PER SQ. YD.
- 2575 MULCH MATERIAL, TYPE-1 2 TONS PER ACRE.
- 2575 COMMERCIAL FERTILIZER, ANALYSIS 10-10-10  
500 LBS. PER ACRE ON ALL SOD AND SEED AREAS.
- 2575 ROADSIDE SEEDING BASED ON HORIZONTAL MEASUREMENT PLUS  
10% SEED MIXTURE NO. 3, AT 45LBS. PER ACRE.

CLEARING AND GRUBBING

STATION TO STATION	LOC.	CLEARING		GRUBBING	
		TREE	ACRE	TREE	ACRE
59+46	32' LT.	2		1	
59+48	33' LT.	1		1	
59+94	32' LT.	1		1	
60+04	32' LT.	1		1	
60+04	45' RT.	1		1	
60+09	45' RT.	1		1	
60+45	34' RT.	1		1	
60+45	45' RT.	1		1	
61+27	38' LT.	1		1	
61+20	45' RT.	1		1	
61+26	37' RT.	1		1	
61+33	47' RT.	1		1	
61+35	52' RT.	1		1	
61+37	51' RT.	1		1	
61+57	45' RT.	1		1	
61+60	34' RT.	1		1	
61+89	34' RT.	1		1	
62+03	44' RT.	1		1	
62+08	24' LT.	3		1	
62+09	54' RT.	1		1	
62+14	24' LT.	1		1	
62+29	33' LT.	1		1	
62+35	30' LT.	1		1	
62+37	30' LT.	1		1	
62+40	42' LT.	1		1	
62+49 TO 63+00	RT.		0.05		0.05
62+64 TO 63+89	LT.		0.05		0.05
63+22	46' RT.	1		1	
63+27	50' RT.			1	
63+31	45' RT.			1	
63+31	46' RT.	1		1	
63+67	47' RT.	1		1	
64+51 TO 66+41	RT.		0.15		0.15
65+81	41' LT.	1		1	
66+20	45' LT.	1		1	
66+84	47' RT.	1		1	
66+95	47' RT.	1		1	
67+07	47' RT.	1		1	
67+20	47' RT.	1		1	
67+37	47' RT.	1		1	
67+46	47' RT.	1		1	
67+58	47' RT.	1		1	
67+68	47' RT.	1		1	
67+77	47' RT.	1		1	
68+11 TO 69+66	RT.		0.10		0.10
70+27	52' RT.	1		1	
70+51	51' RT.	3		1	
70+56	52' RT.	1		1	
70+66	39' RT.	1		1	
73+93 TO 74+57	RT.		0.05		0.05
74+02 TO 74+85	LT.		0.05		0.05
74+79	32' RT.			1	
74+85	33' RT.	1		1	
74+91	40' LT.	1		1	
75+06	52' RT.	1		1	
75+15	52' RT.	1		1	
75+22 TO 75+91	29'-36' RT.				0.05
75+83	48' RT.	1		1	

CLEARING AND GRUBBING

STATION TO STATION	LOC.	CLEARING		GRUBBING	
		TREE	ACRE	TREE	ACRE
24+18	30' LT.			1	
36+72	43' RT.	1		1	
38+18	42' RT.	1		1	
39+00	45' RT.	1		1	
39+48 TO 41+00	LT.		0.10		0.10
39+58	35' RT.	1		1	
39+82	36' RT.	1		1	
40+00 TO 40+78	RT.		0.05		0.05
40+89	54' RT.	1		1	
41+09	41' LT.	1		1	
41+23	41' LT.	1		1	
41+39	41' LT.	1		1	
41+40	31' LT.	1		1	
41+60	31' LT.	1		1	
42+34 TO 43+58	LT.		0.05		0.05
44+75	40' LT.	1		1	
45+40	40' LT.	1		1	
45+84	39' LT.	2		2	
46+75	42' LT.	1		1	
46+89	42' LT.	1		1	
47+04	32' LT.	1		1	
48+44	49' LT.	1		1	
49+60	34' RT.	1		1	
50+35 TO 51+00	LT.		0.05		0.05
52+20	37' LT.	1		1	
52+52	38' LT.	1		1	
52+61	39' RT.	1		1	
53+54	38' RT.	1		1	
53+70	44' RT.	1		1	
53+83	44' RT.	1		1	
53+92	44' RT.	1		1	
54+28	44' RT.	1		1	
54+70	44' RT.	1		1	
55+00	44' RT.	1		1	
55+20	43' RT.	1		1	
55+40	43' RT.	1		1	
55+73	33' RT.	1		1	
55+77	43' RT.	1		1	
55+86	39' RT.	1		1	
55+95	43' RT.	1		1	
56+11	43' RT.	1		1	
56+28	43' RT.	1		1	
56+34	43' RT.	1		1	
56+45	46' RT.	1		1	
56+91	45' RT.	1		1	
57+31	46' RT.	2		1	
57+72	45' RT.	1		1	
57+78	46' RT.	1		1	
57+89	46' RT.	1		1	
58+20	45' RT.	1		1	
58+40	45' RT.	2		1	
58+45	45' RT.	2		1	
58+47	37' RT.	1		1	
58+86	35' RT.	1		1	
58+91	45' RT.	1		1	
59+29	45' RT.	1		1	
59+58	45' RT.	1		1	
59+94	42' RT.	1		1	

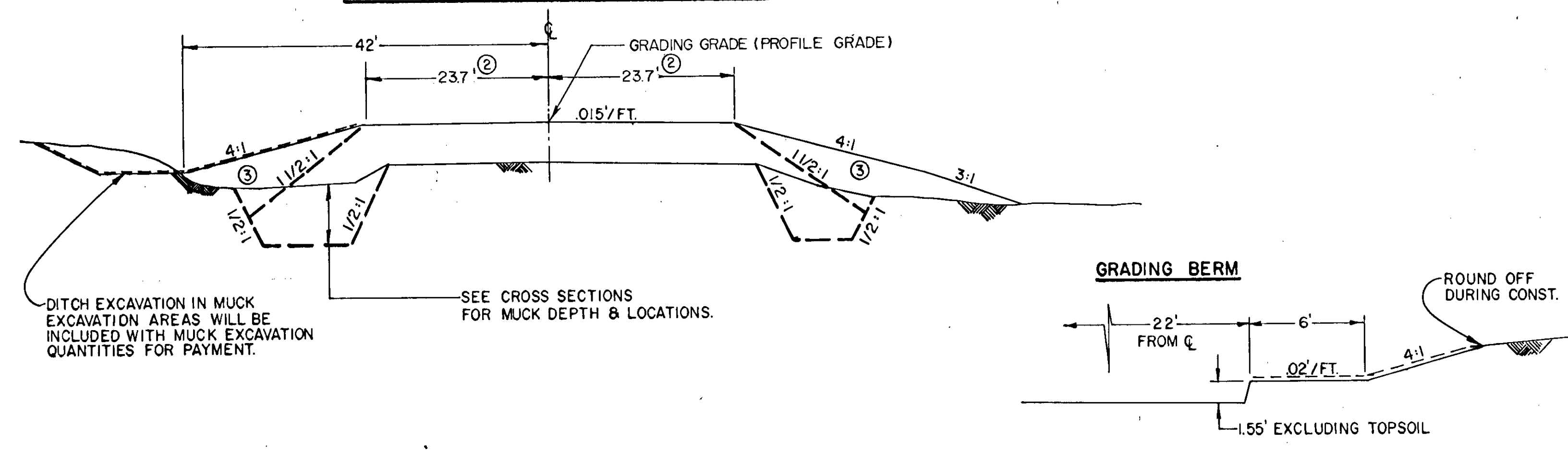
CLEARING AND GRUBBING

STATION TO STATION	LOC.	CLEARING		GRUBBING	
		TREE	ACRE	TREE	ACRE
75+49	42' LT.	1		1	
75+51	52' RT.	1		1	
75+76	35' LT.	1		1	
75+79	52' RT.	1		1	
75+86	52' RT.	1		1	
75+96	52' RT.	1		1	
76+04	52' RT.	1		1	
76+08	36' LT.	1		1	
76+10	44' RT.	1		1	
76+21	32' LT.	1		1	
76+74	38' LT.	1		1	
76+90	35' LT.	1		1	
76+93	35' LT.	1		1	
76+98	45' LT.	1		1	
77+08	30' LT.	1		1	
77+16	30' LT.	1		1	
77+65	34' LT.	1		1	
77+81	34' LT.	2		1	
77+97	34' LT.	2		1	
78+30	33' LT.	2		1	
78+46	35' LT.	3		1	
78+59	35' LT.	4		1	
78+89	34' LT.	3		1	
79+33	33' LT.	1		1	
79+58	36' LT.	1		1	
79+60	44' LT.	1		1	
79+65	33' LT.	1		1	
79+94	44' LT.	1		1	
80+04	44' LT.	1		1	
80+10	49' RT.	1		1	
80+13	44' LT.	1		1	
80+46	41' RT.	1		1	
80+51	45' LT.	1		1	
80+61	45' LT.	1		1	
80+82	45' LT.	1		1	
80+57 TO 82+96 (FIRST ROW OF PINES)	46' RT.		0.15		0.15
81+04 TO 83+08	LT.		0.15		0.15
81+36	38' RT.	1		1	
83+19	45' RT.	1		1	
83+32	41' RT.	1		1	
83+50	39' RT.	1		1	
83+55 TO 84+52	RT.		0.05		0.05
84+90	45' RT.	1		1	
85+18	45' RT.	1		1	
85+74	45' RT.	1		1	
86+04 TO 88+84	RT.		0.20		0.20
89+42 TO 91+88 (FIRST ROW OF PINES)	44' 50' RT.		0.20		0.20
92+26	45' RT.	1		1	
92+75	45' RT.	3		1	
93+14 TO 96+80	RT.		0.30		0.30
93+19 TO 99+19	LT.		0.40		0.40
97+07	40' RT.	1		1	
97+65 TO 102+95	RT.		0.45		0.45
99+51 TO 105+98	LT.		0.35		0.35
103+67 TO 105+91	RT.		0.20		0.20
TOTAL		167	315	151	

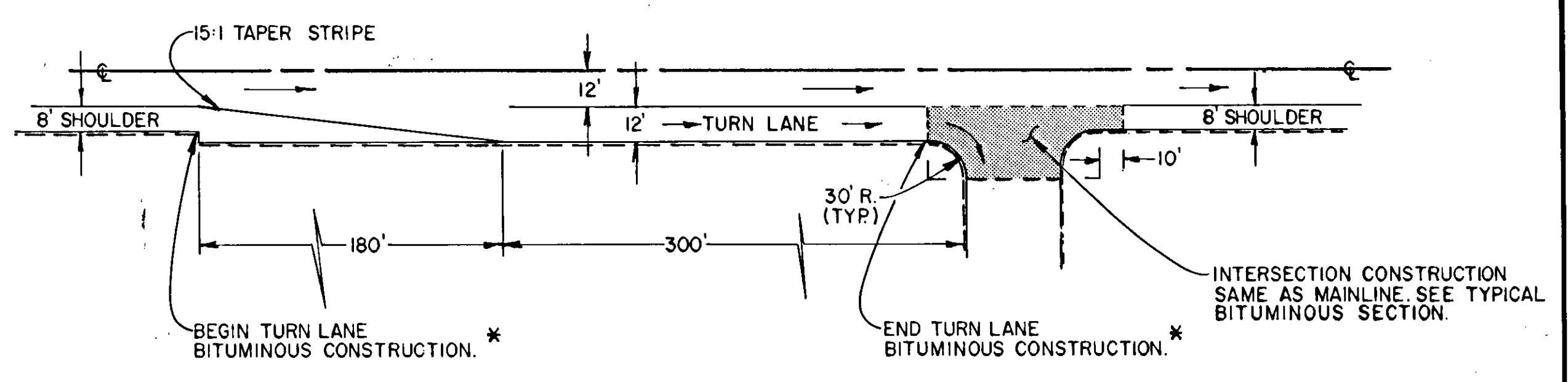




**GRADING SECTION - MUCK EXCAVATION AREAS**

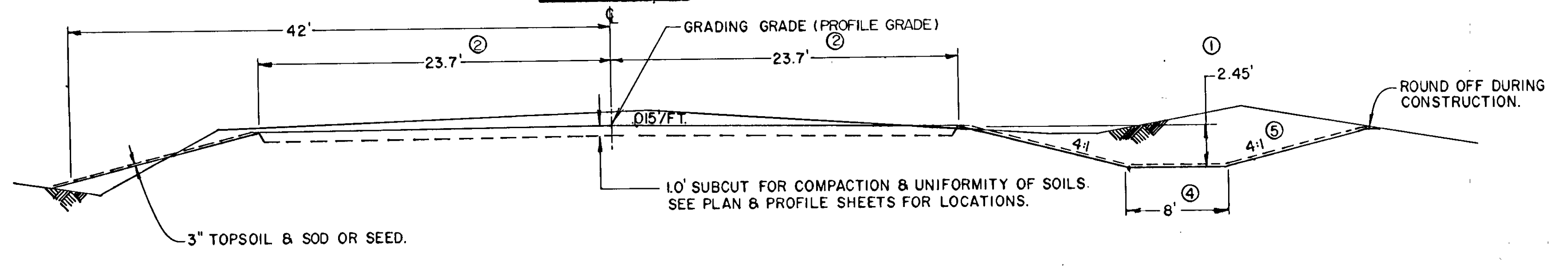


**TYPICAL RIGHT TURN LANE**

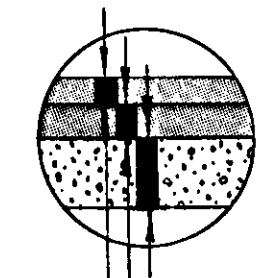


\* SEE DETAIL 'A' FOR BASE AND BITUMINOUS CONSTRUCTION.

**GRADING SECTION**



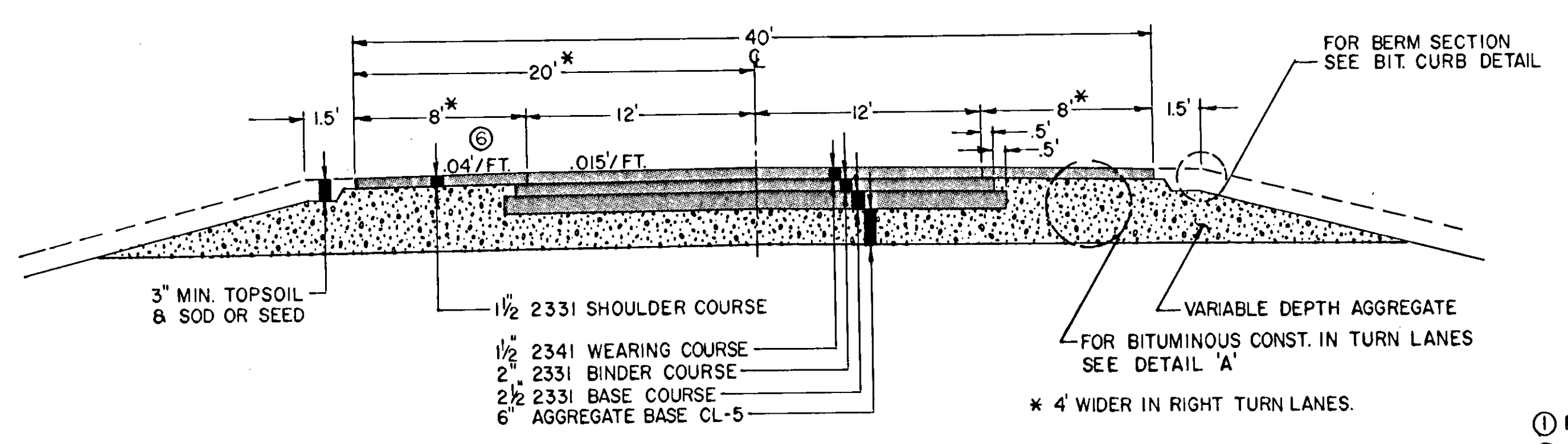
**DETAIL 'A'**  
RIGHT TURN CONST.



1 1/2" 2341 WEARING COURSE  
 2" 2331 BINDER COURSE  
 VARIABLE DEPTH CL-# 5

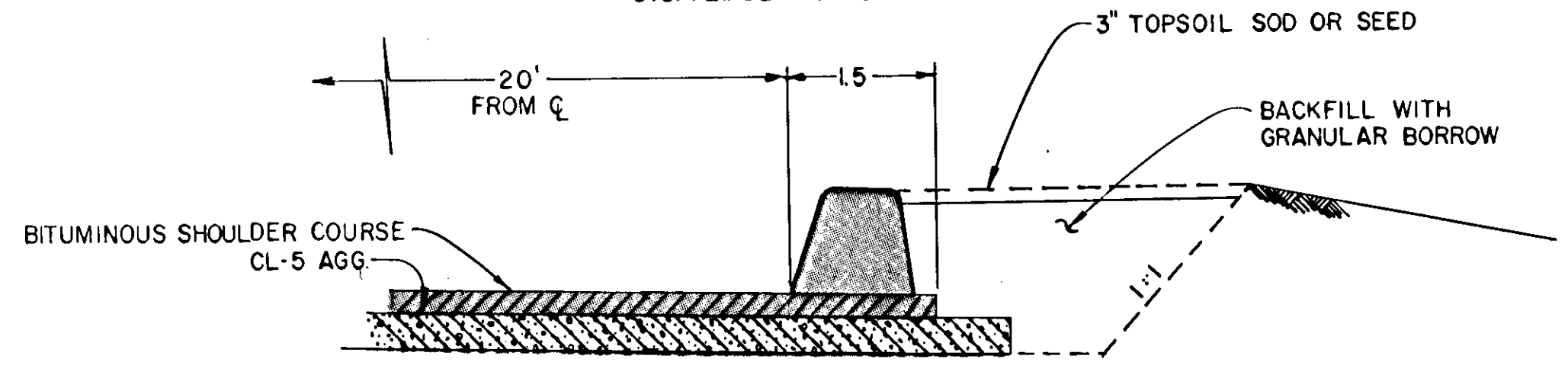
- RIGHT TURN LOCATIONS**  
 STA. 2+63 - STA. 18+25 LT.  
 STA. 24+12 - STA. 28+90 RT.  
 STA. 32+65 - STA. 37+44 RT.  
 STA. 42+64 - STA. 47+58 RT.  
 STA. 47+85 - STA. 58+28 LT.  
 STA. 64+88 - STA. 69+67 LT.  
 STA. 68+12 - STA. 79+44 RT.  
 STA. 83+31 - STA. 88+10 RT.  
 STA. 90+87 - STA. 95+65 LT.  
 STA. 92+42 - STA. 97+23 RT.  
 STA. 101+42 - STA. 106+22 RT.

**TYPICAL BASE & SURFACING SECTION**



- ① FOR SPECIAL DITCHES SEE PLAN & CROSS SECTIONS.  
 ② 28.3 RIGHT TURN LANES.  
 ③ FILL WITH SWAMP EXCAVATION MATERIAL.  
 ④ FOR MODIFIED DITCH WIDTHS SEE CROSS SECTIONS.  
 ⑤ SEE CROSS SECTIONS FOR MODIFIED DITCH SLOPES.  
 ⑥ .02'/FT. IN RIGHT TURN LANES.

**BITUMINOUS CURB DETAIL**  
STD. PLT. DETAIL 7065 C



- CURB LOCATIONS**  
 STA. 39+00 TO STA. 42+85 LT.  
 STA. 52+35 TO STA. 53+10 LT.

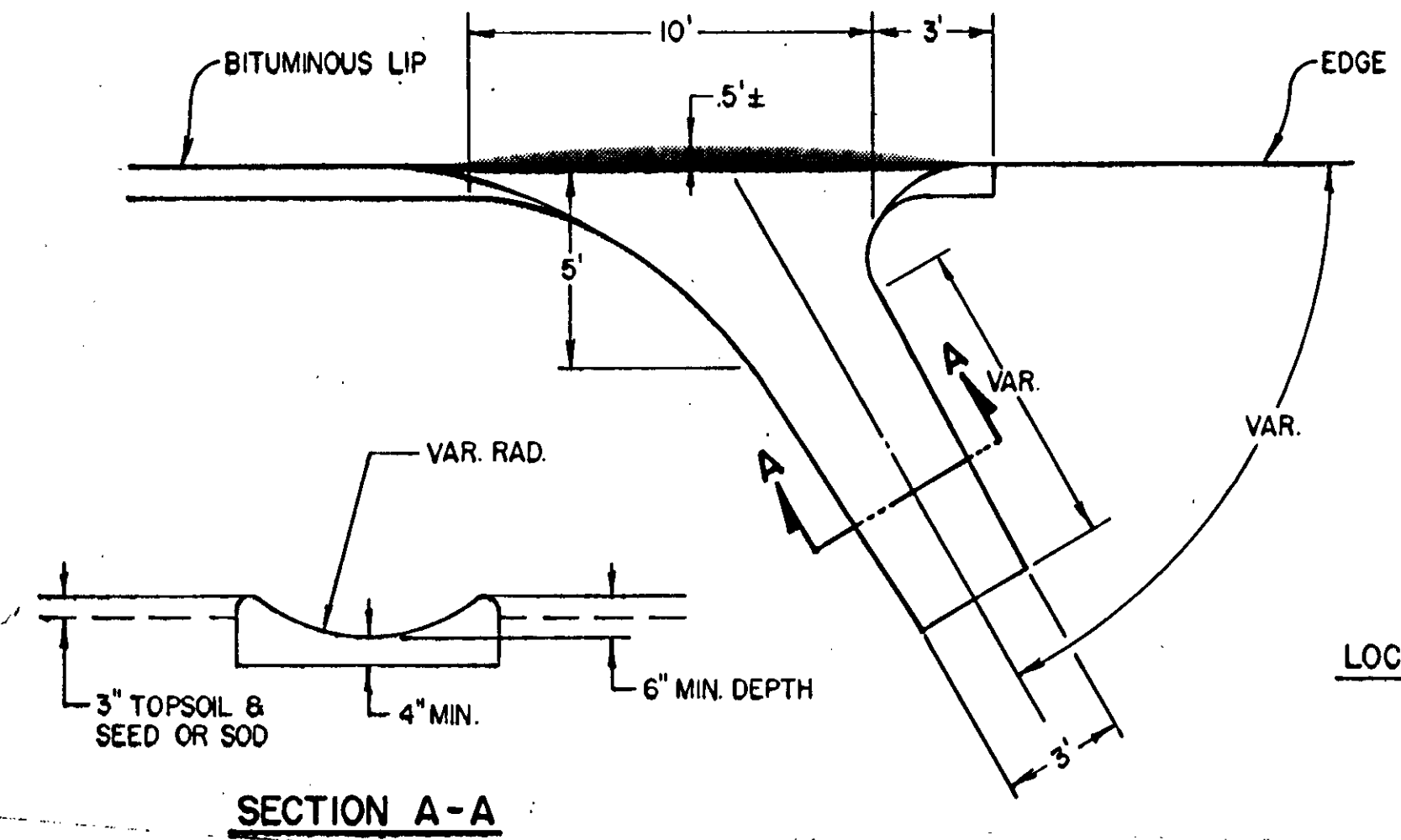
REVISIONS			
DATE	BY	DATE	BY

S.A.P. S.P. C.P. 87-04-83.

**TYPICAL SECTIONS**



**TYPICAL BITUMINOUS FLUME**



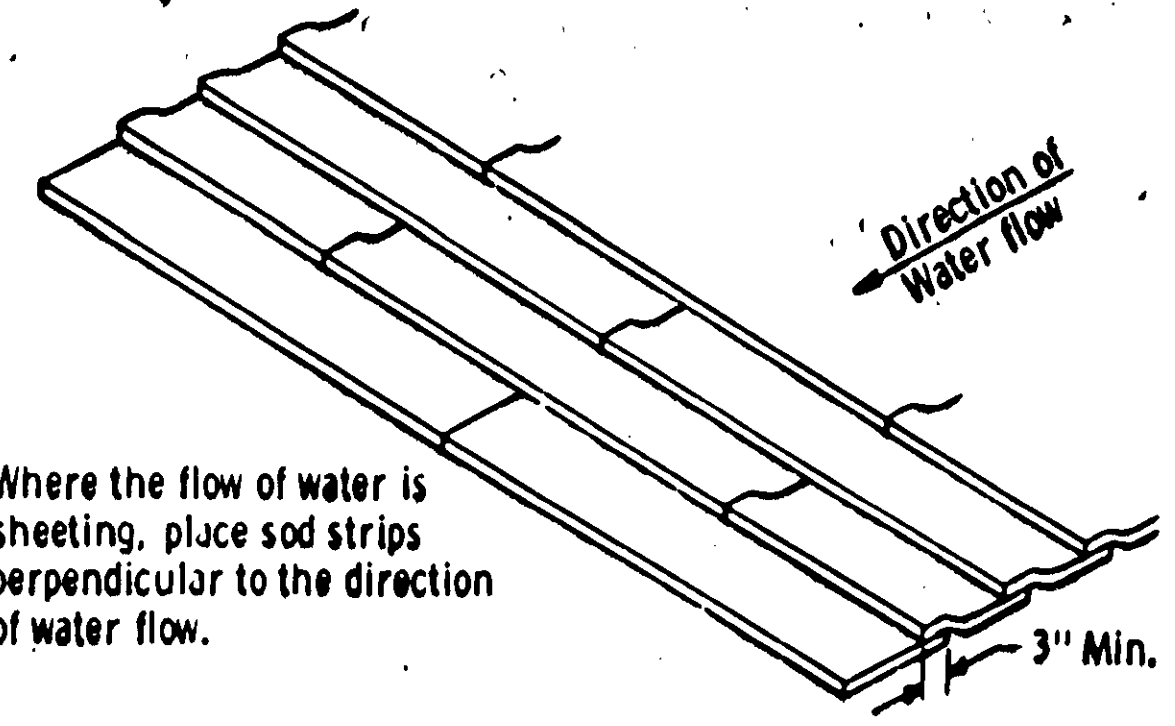
DENOTES AREA OF INCREASED SLOPE TO DIVERT WATER FLOW INTO FLUME. THIS MUST BE ACCOMPLISHED DURING SHOULDER PAVING OPERATIONS.

FLUME DESIGN MAY BE MODIFIED TO MATCH EXISTING CONDITIONS UPON APPROVAL OF THE ENGINEER.

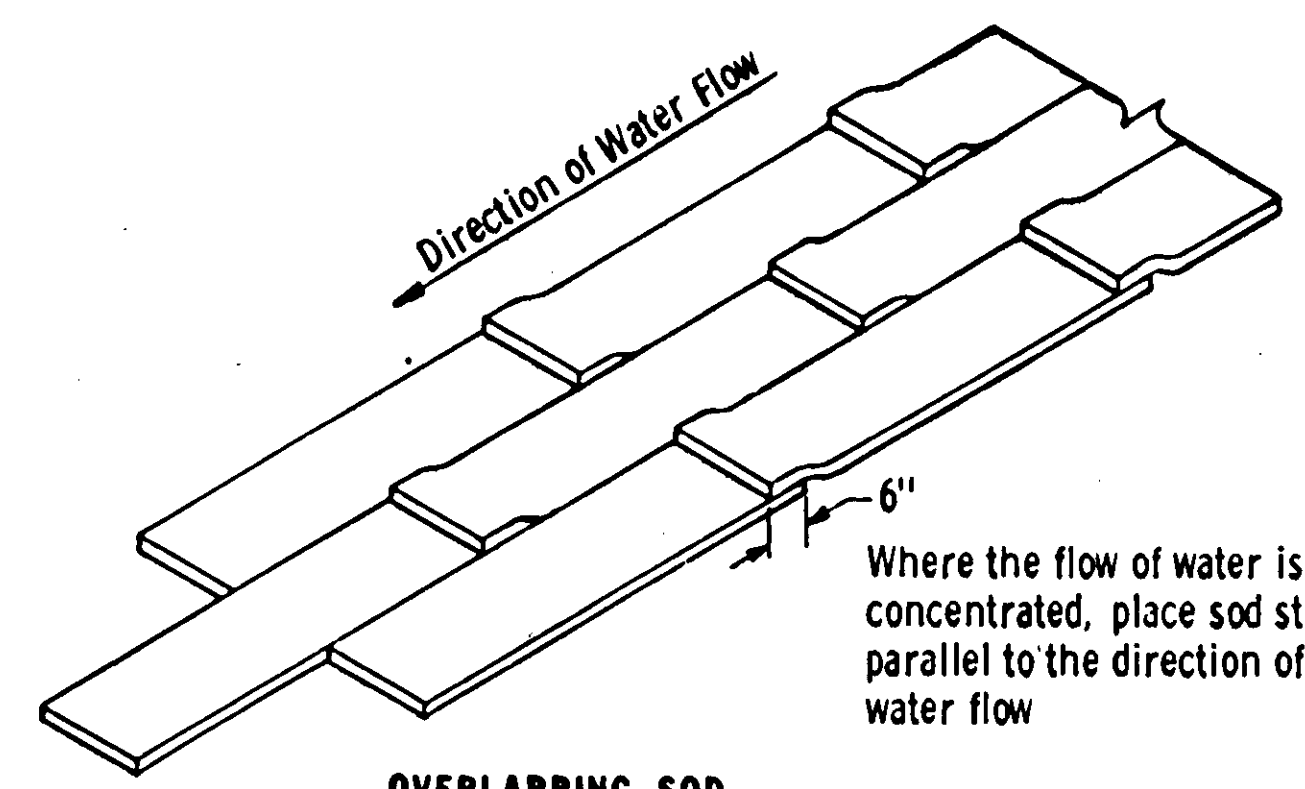
LOCATION \*

\* LOCATIONS ARE APPROX. EXACT LOCATIONS ARE TO BE DETERMINED IN THE FIELD DURING CONST.

BIT. DRAINAGE FLUMES		
STATION	LOCATION	SQ. YD.
8+00	LT.	7
8+50	LT.	7
13+00	LT.	7
13+50	LT.	7
39+00	LT.	7
52+20	LT.	7
TOTAL		42

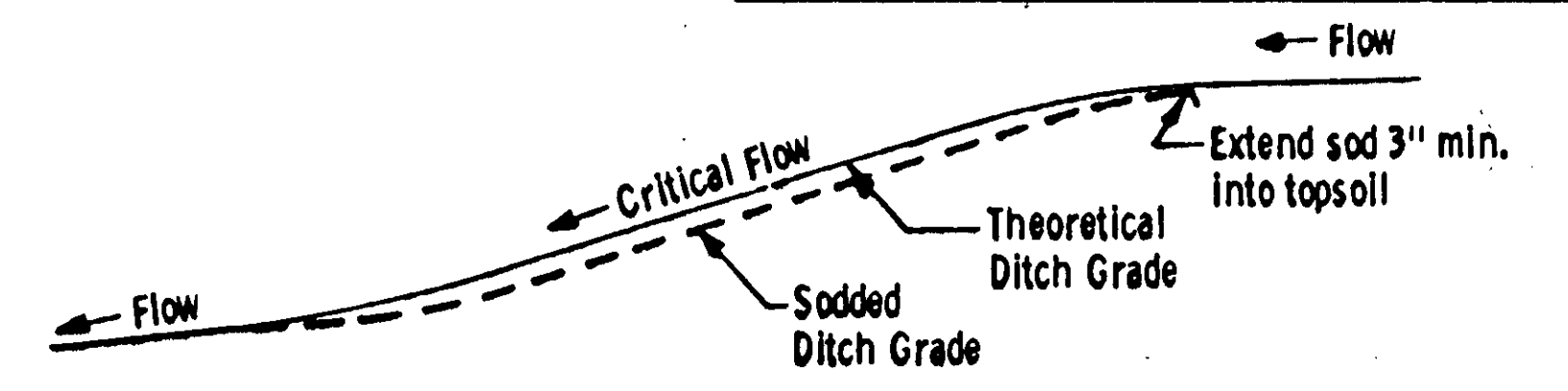


Where the flow of water is sheeting, place sod strips perpendicular to the direction of water flow.



Where the flow of water is concentrated, place sod strips parallel to the direction of water flow

**SPECIAL SOD PLACEMENT TECHNIQUES**

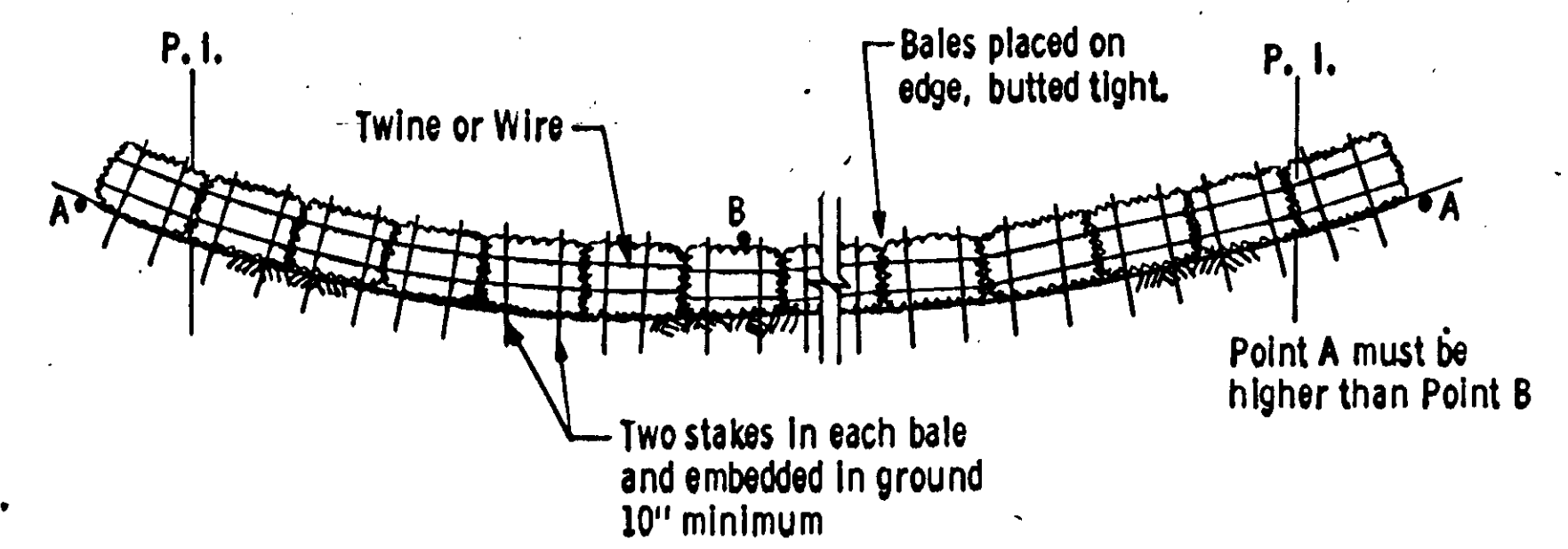


NOTE: APPLIES TO DITCH GRADES 2.0% OR GREATER.

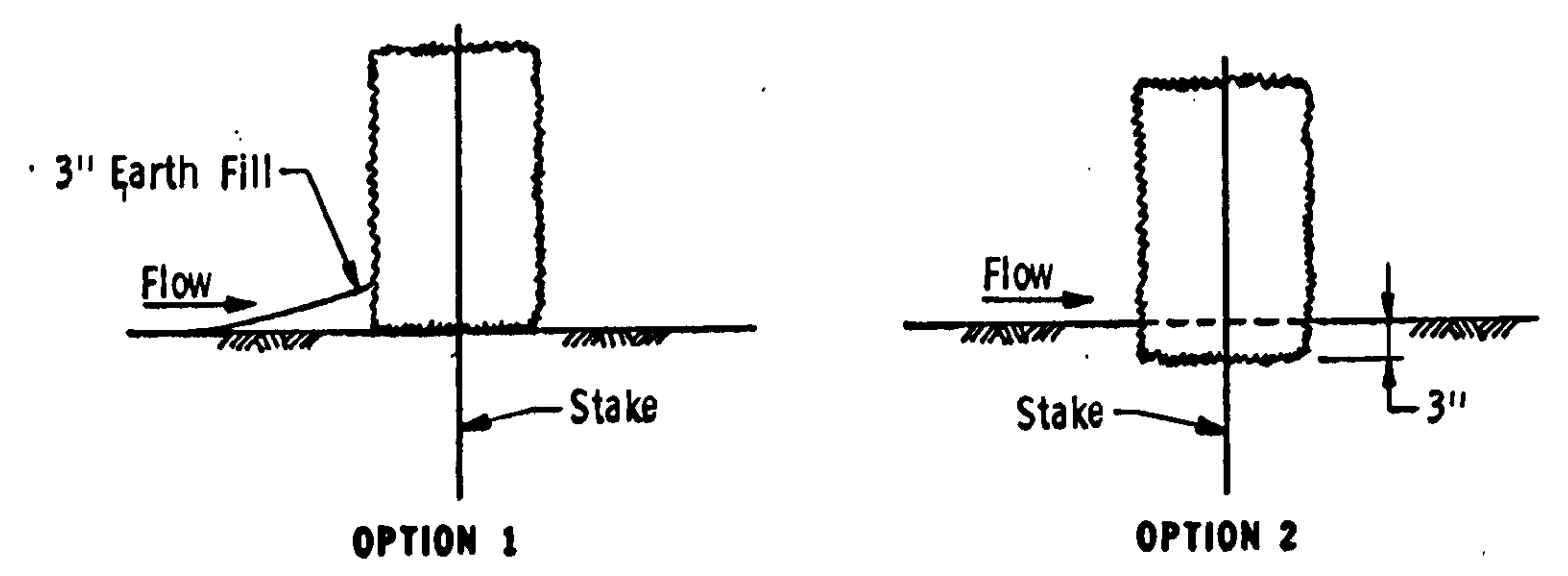
DITCH PROFILE

**SODDED DITCH DETAILS**

SODDING		
STATION	LOCATION	SQ. YD.
4+90 TO 7+15	LT.	650
37+69 TO 39+50	RT.	504
41+00 TO 42+50	LT.	417
46+00 TO 47+60	LT.	379
51+75 TO 53+00	LT.	313
55+00 TO 56+50	RT.	506
64+07 TO 66+40	LT.	472
67+00 TO 68+50	RT.	504
75+00 TO 76+50	LT.	393
95+50 TO 97+25	RT.	417
98+00 TO 100+00	LT.	343
2+00 TO 5+50	OFF TAKE DITCH	622
CULVERT ENDS		624
TOTAL		6154

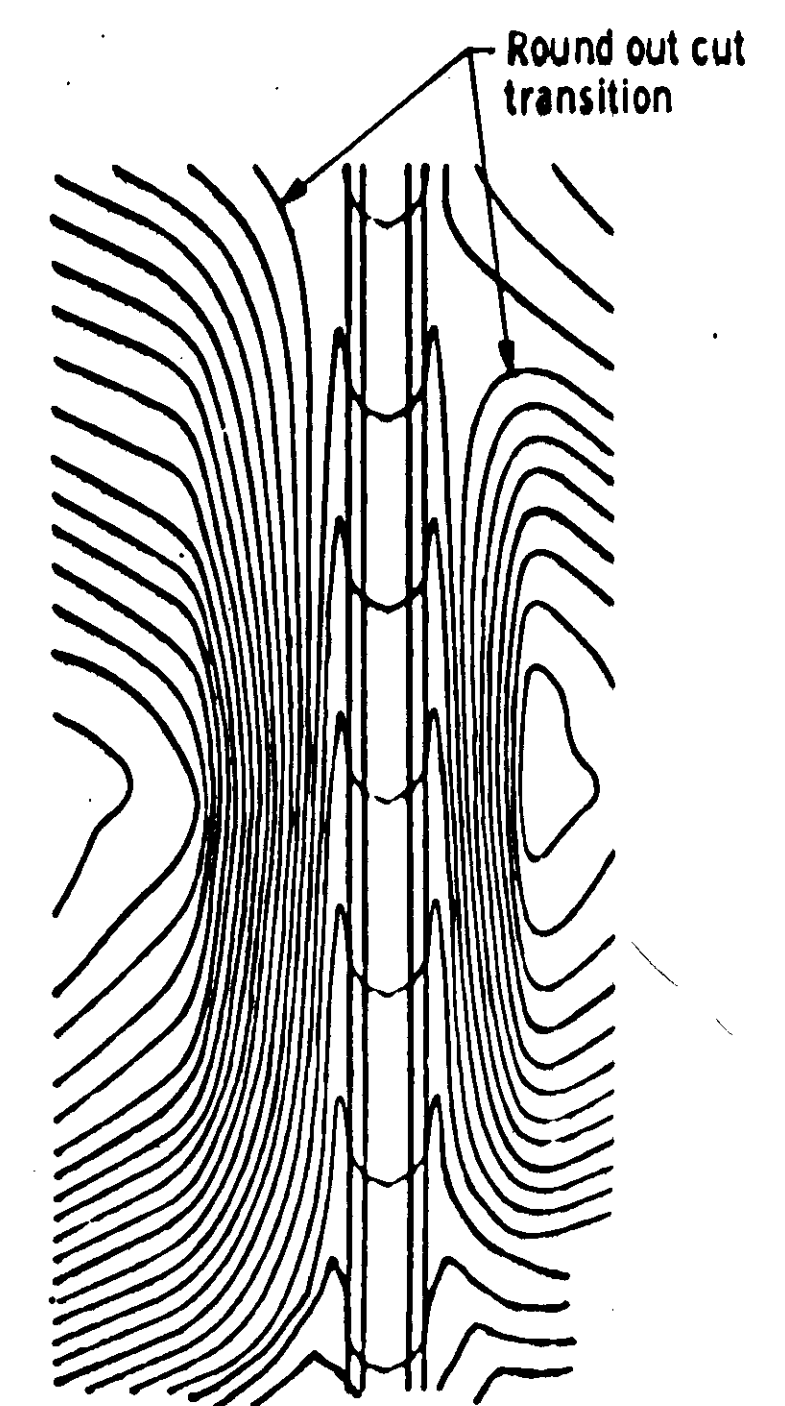


**BALE HAY OR STRAW DITCH CHECK**

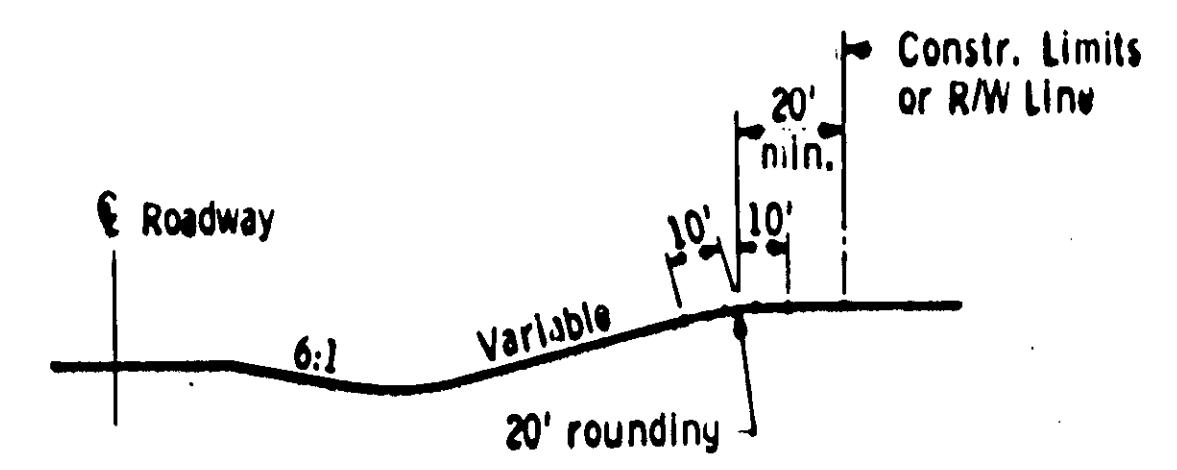


DITCH CHECK SECTIONS

BALE CHECKS		
STATION	LOCATION	QUANTITY
22+00	LT. & RT.	10
25+00	RT.	5
27+25	LT.	5
50+25	LT.	5
50+75	LT.	5
54+00	LT.	5
7+50	OFF TAKE DITCH	5
TOTAL		40



CONTOURING ROAD CUTS



ROUNDING BACK SLOPES

REVISIONS			
DATE	BY	DATE	BY

**EROSION CONTROL**

S.A.P. \_\_\_\_\_ S.P. \_\_\_\_\_ C.P. 87-04-83

BM # 1 ELEV 880.97  
R/R. SPK. IN P/P  
STA. 3+40 LT. 80'

BM # 2 ELEV. 872.82  
TOP IP STA. 8+58 LT. 60'

BM # 3 ELEV. 870.69  
TOP IRON ROD  
STA. 13+05 LT. 75'

OR P.I. 2+52.19 =  
SURV. POT. 2+50.29  
 $\Delta = 24^\circ 30'$  LT.  
 $D = 20^\circ 00'$   
 $R = 286.48'$   
 $T = 62.20'$   
 $L = 122.50'$   
 $E = 6.67'$

BEGIN CONST. - N. SHLD.  
LINE - U.S. T.H. 10  
OR POT. 1+87±

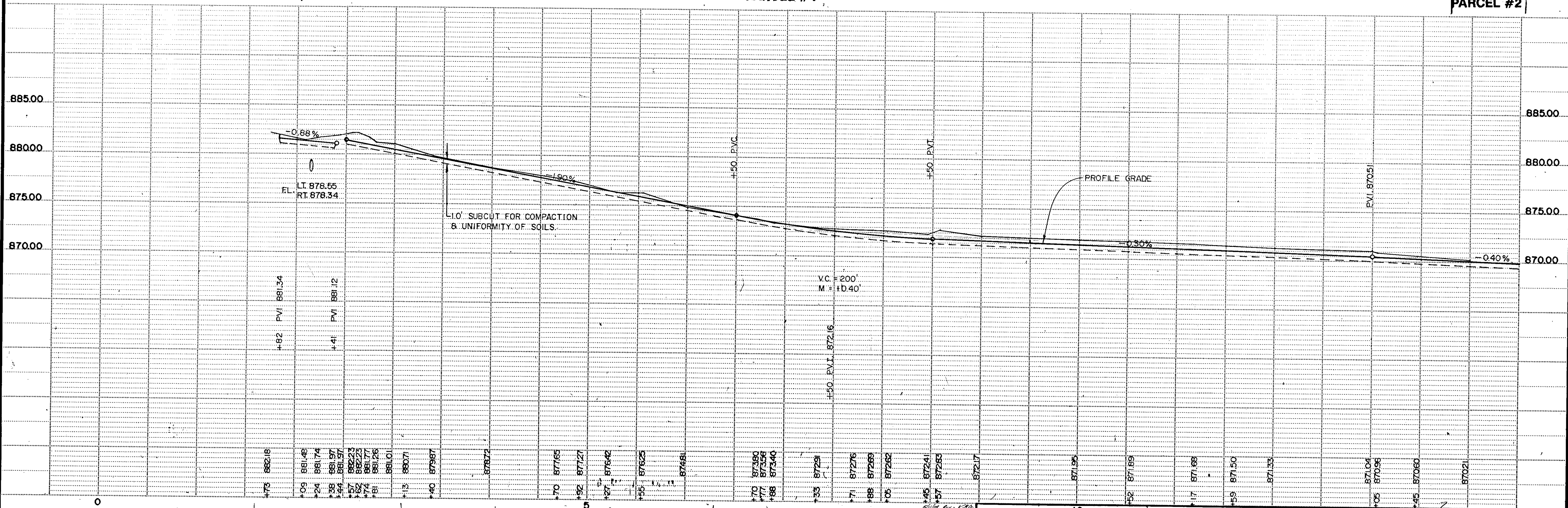
STA. 2+15  
F&I. 18" X 74' R.C.P. CULVERT  
F&I. 1' 18" R.C.P. APRON LT.  
F&I. 1' 18" R.C.P. SAFETY APRON RT.

BEG. PROJECT C.P. 87-04-83  
STA. 2+63.6

U.S.G.S. BM. ELEV. 872.96

PARCEL #1

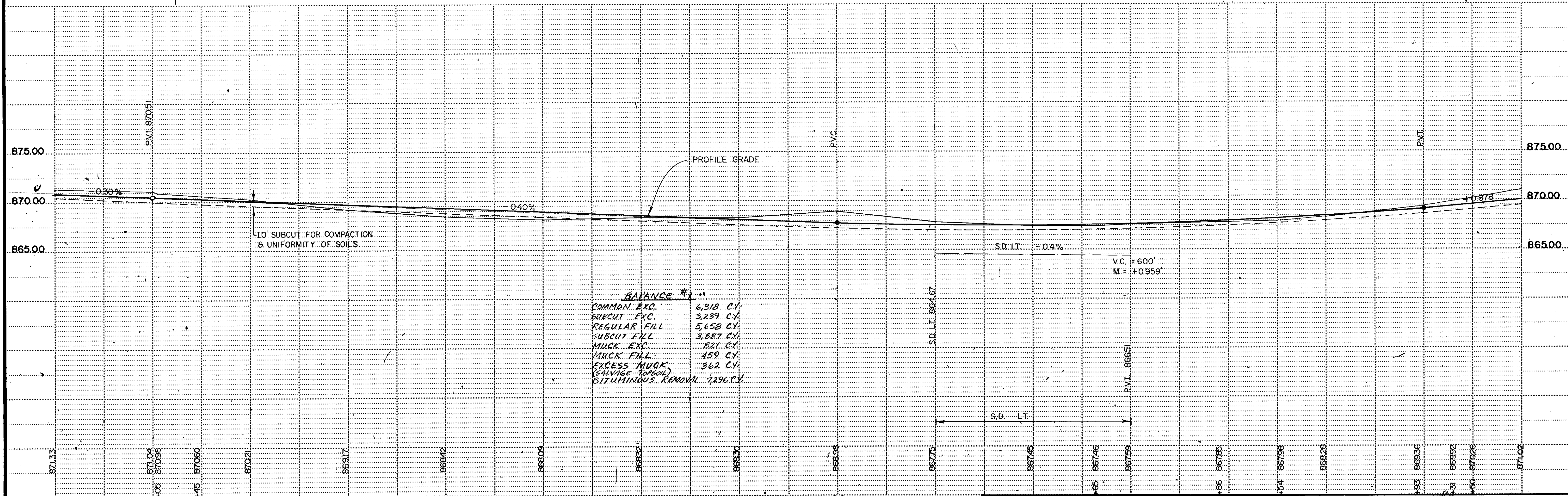
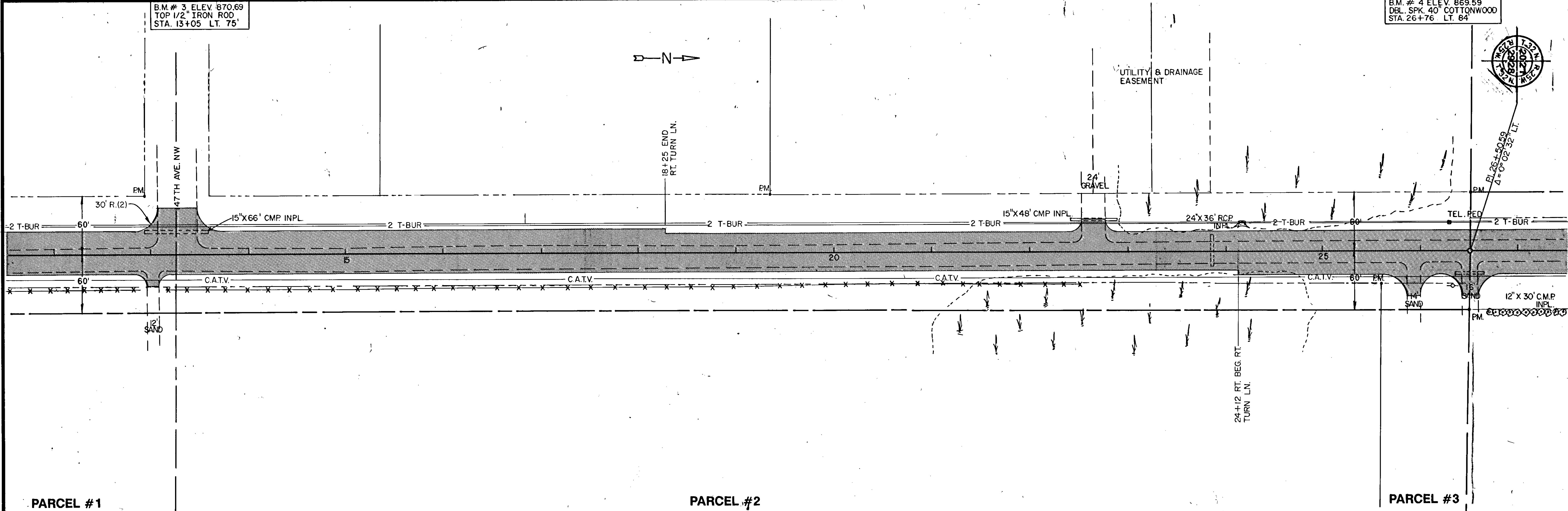
PARCEL #2





B.M. # 3 ELEV. 870.69  
TOP 1/2" IRON ROD.  
STA. 13+05 LT. 75'

B.M. # 4 ELEV. 869.59  
DEL. SPK. 40' COTTONWOOD  
STA. 26+76 LT. 84'





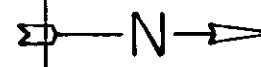




PARCEL #4

PARCEL #5

B.M. # 6 ELEV. 883.25  
DBL. SPK. 6" PINE  
STA. 44+10 LT. 100'



2-S-F  
# 15060

2-S-ST

39+00 LT.  
BEG. BERM

WELL

VENT

2" P.V.C. CONDUIT

152<sup>ND</sup> AVE

152<sup>ND</sup> LANE

30' R. (4)

18' X 50' CMP. INPL.

16' SAND

150<sup>TH</sup> LANE

1-S-F  
# 7961

2-S-F

1-S-F

2  
S-F

42+84 RT. BEG.  
RT. TURN L.N.

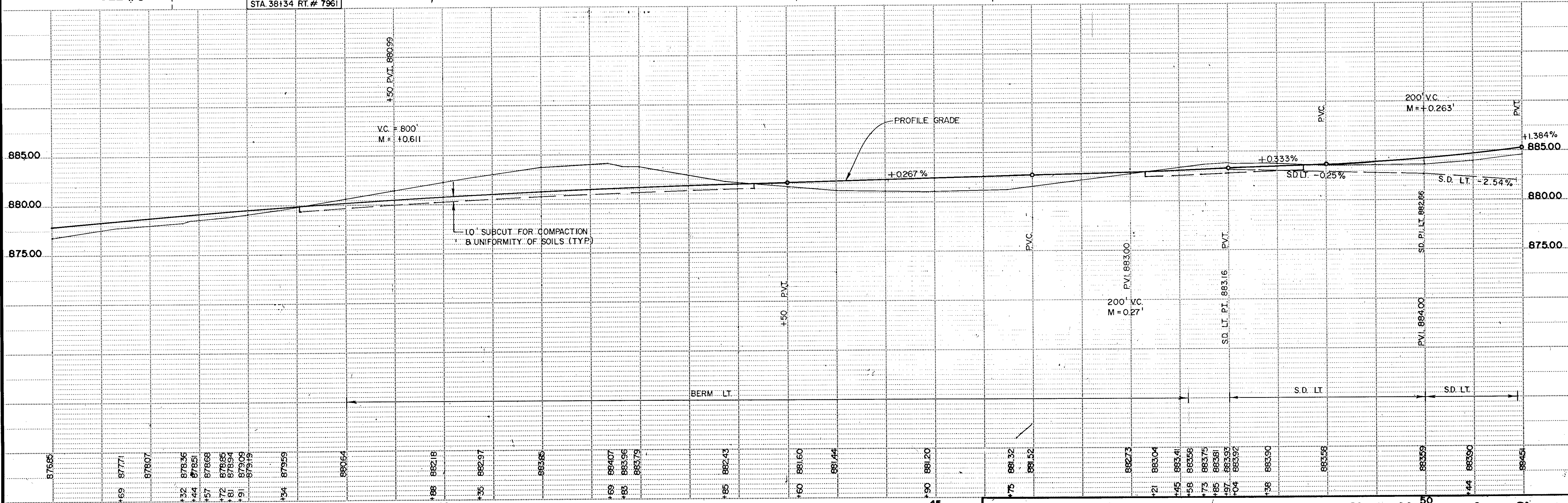
SEEDLINGS

3" GAS (STEEL PIPE)  
53' FROM CENTER

B.M. # 5 ELEV. 880.18  
TOP SE. COR. BOT. STEP  
STA. 38+34 RT. # 7961

PARCEL #8

PARCEL #9



PLANNING DIV. - 100 - 10000







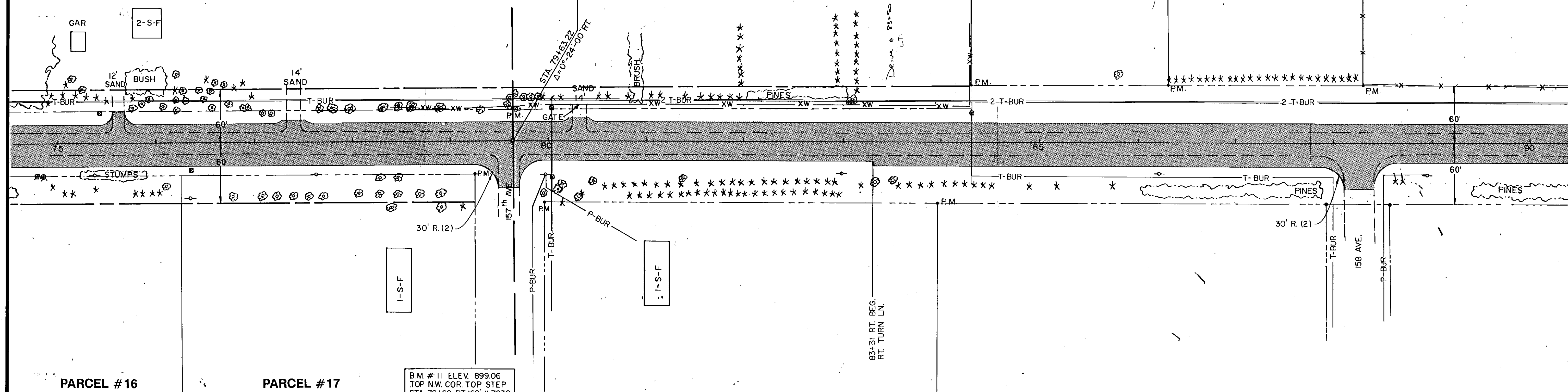
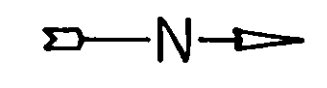
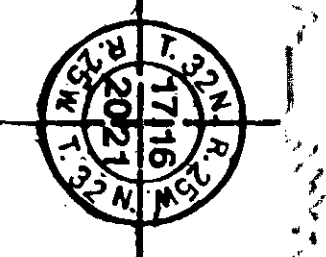




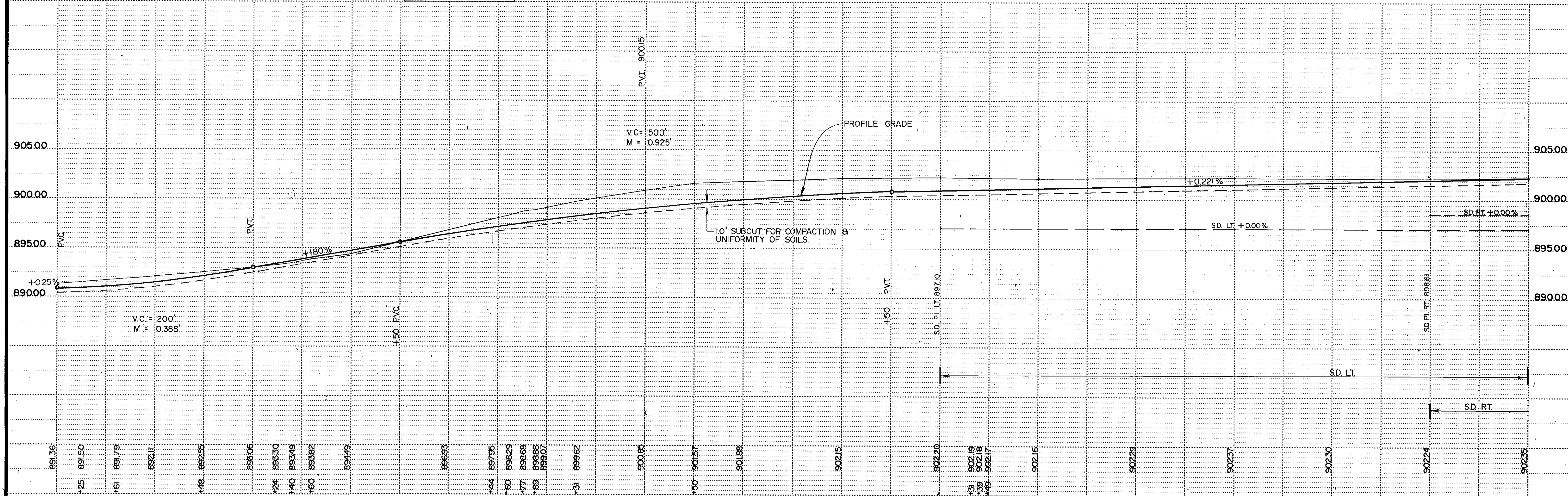
PARCEL #7

PARCEL #18

B.M. # 12 ELEV. 901.13  
TOP NE. COR. CONC. SLAB  
STA. 86+85 LT. 300



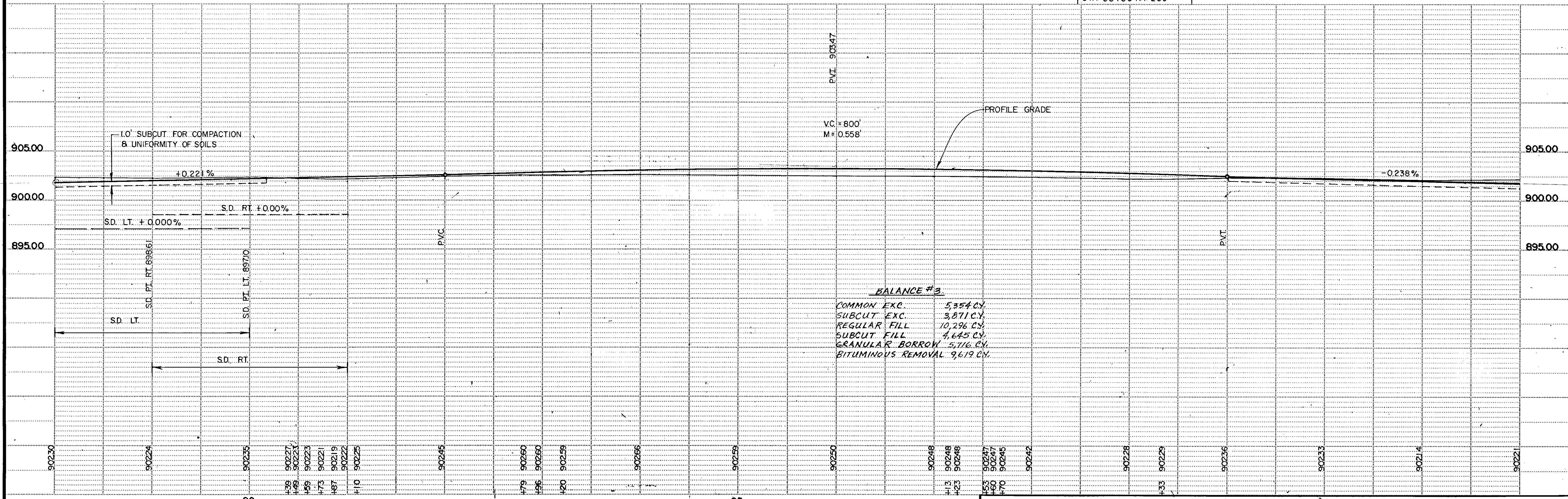
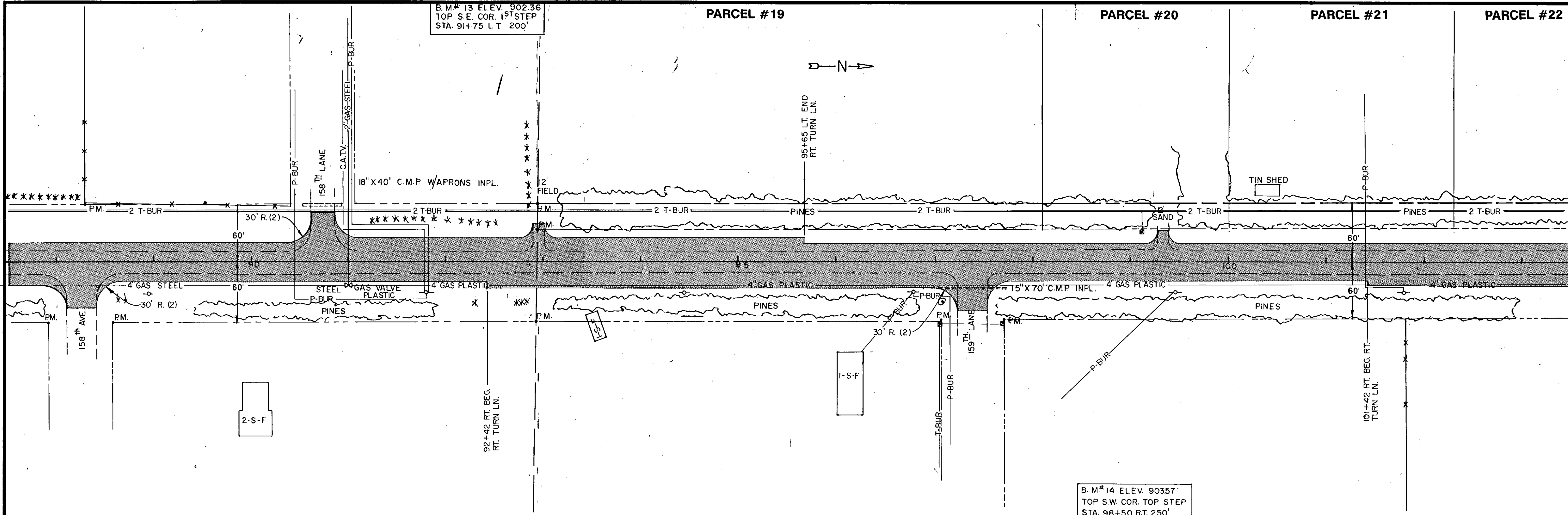
B.M. # 11 ELEV. 899.06  
TOP N.W. COR. TOP STEP  
STA. 78+60 RT 160' # 7930





B.M.# 13 ELEV. 902.36  
TOP S.E. COR. 1<sup>ST</sup> STEP  
STA. 91+75 L T 200'

B.M.# 14 ELEV. 903.57  
TOP S.W. COR. TOP STEP  
STA. 98+50 RT 250'

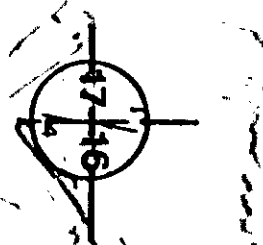
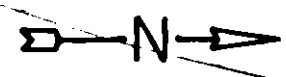


TELLEPS 800 - 387 - 6424

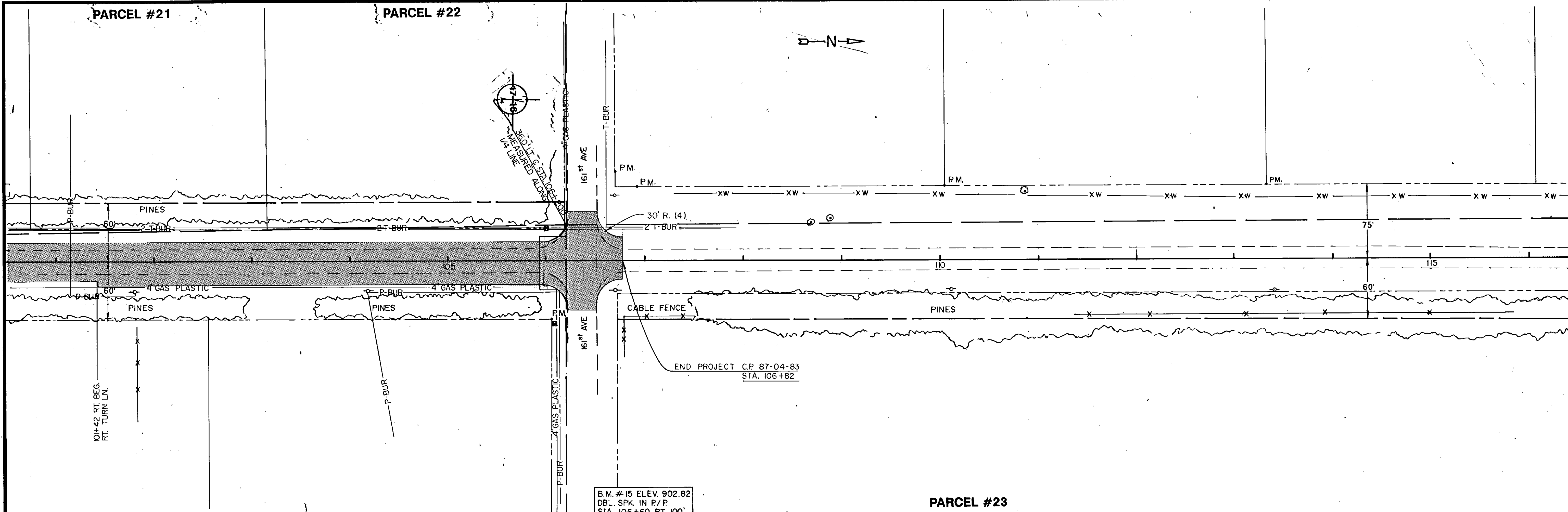


PARCEL #21

PARCEL #22

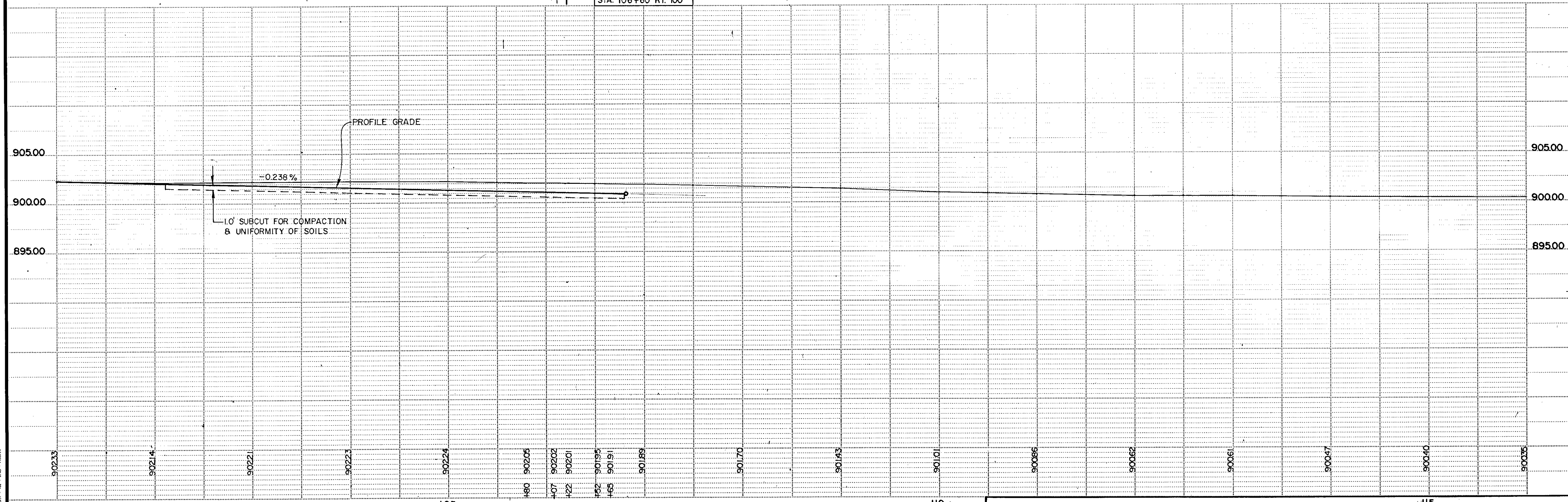


360.1' C. STATIONED  
MEASURED ALONG  
V.A. LINE



B.M. # 15 ELEV. 902.82  
DBL. SPK. IN P/P  
STA. 106+60 RT. 100'

PARCEL #23

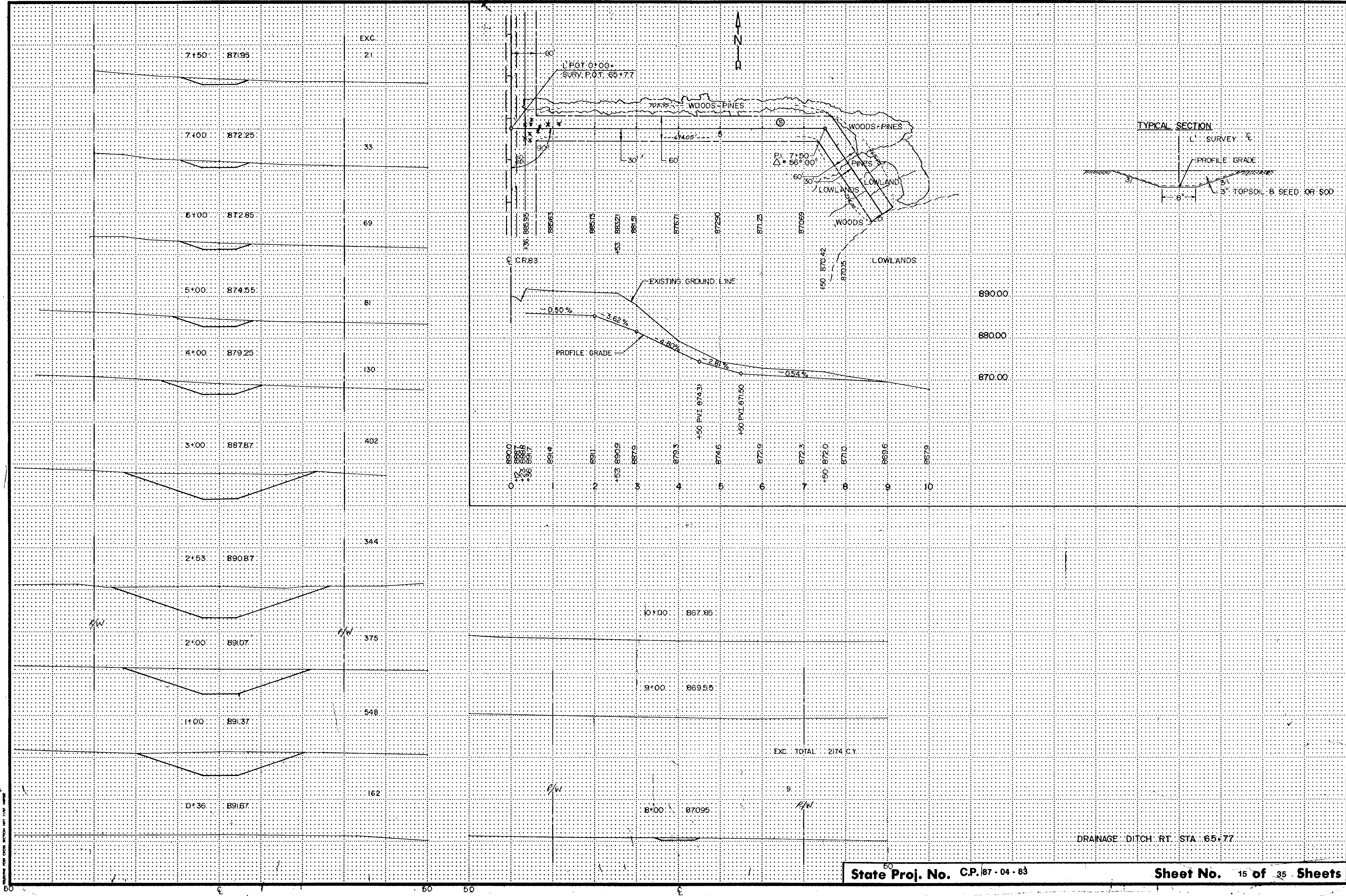


105

110

TELETYPE FONT - 10 - 3/16 - 1/8/74





**EXCAVATION EMBANKMENT**

SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS

2+57 882.23  
= OR 2+56.65

2+44 881.97  
= OR 2+43.33

OR TRACK INTERSECT 2+41  
2+41 C=00

S TRACK - BN RR X-ING  
2+36 881.97  
= OR 2+37.13

DENOTES NEW ROAD WIDTH  
IN TRACK AREA

CONST. TO MATCH INPLACE RR GRADE LT & RT

26 0

2+24 881.74  
= OR 2+22.53

SD 87859

SD 87840

↓  
0.50%

OR (TYP)

32 8

↓  
0.50%

2+09 881.48  
= OR 2+06.61

SD 87971

FL 87855

STA 2+15  
F&I 22' SPAN X 64' RCP-A CULV., 0.25%  
F&I 2-22' RCP-A APRONS

FL 87836

SD 8790

13 12

DENOTES CROSS SECTION  
AT PIPE CONST. STA. 2+15

OR - TH. 10 SHLD INTERSECT STA. 1+82 ± = A PT. 28.97' LT. & 1' TO SURV. POT. 1+86.71  
N SHLD - TH. 10  
1+73 882.18

STA. 1+73 TO STA. 2+57

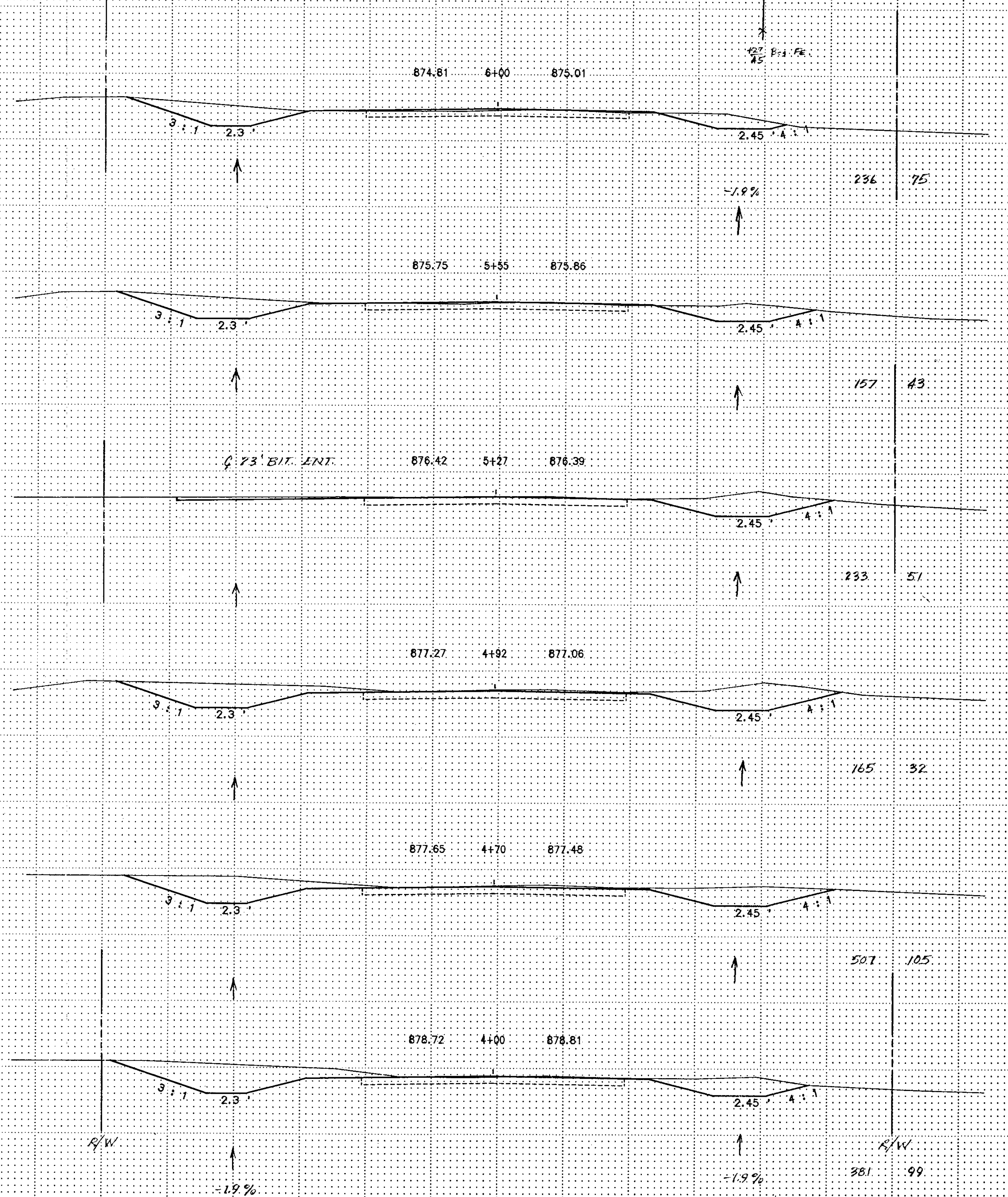
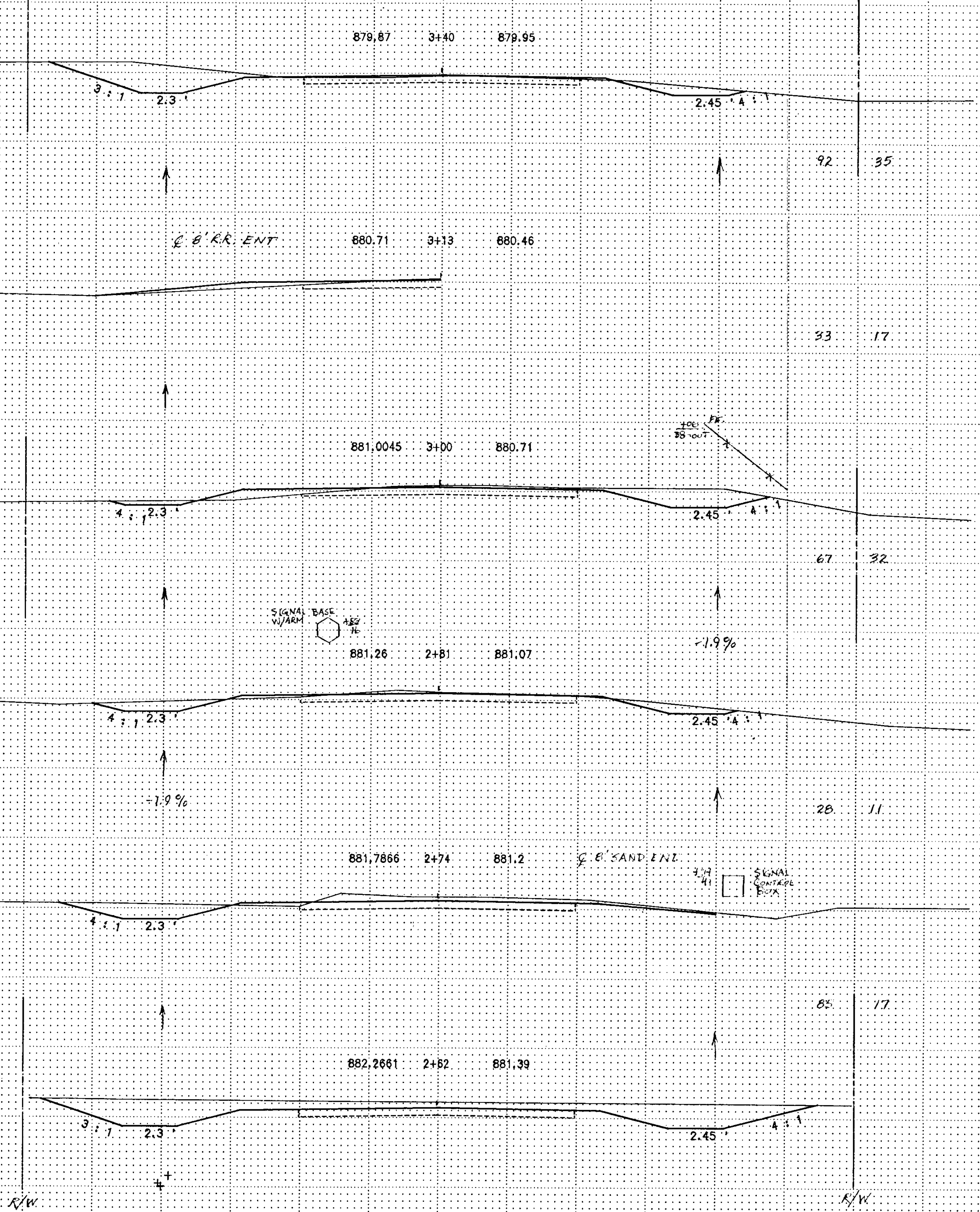


EXCAVATION  
SUB-TOTALS CU.YDS.

EMBANKMENT  
CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS.

EMBANKMENT  
CU.YDS. SUB-TOTALS



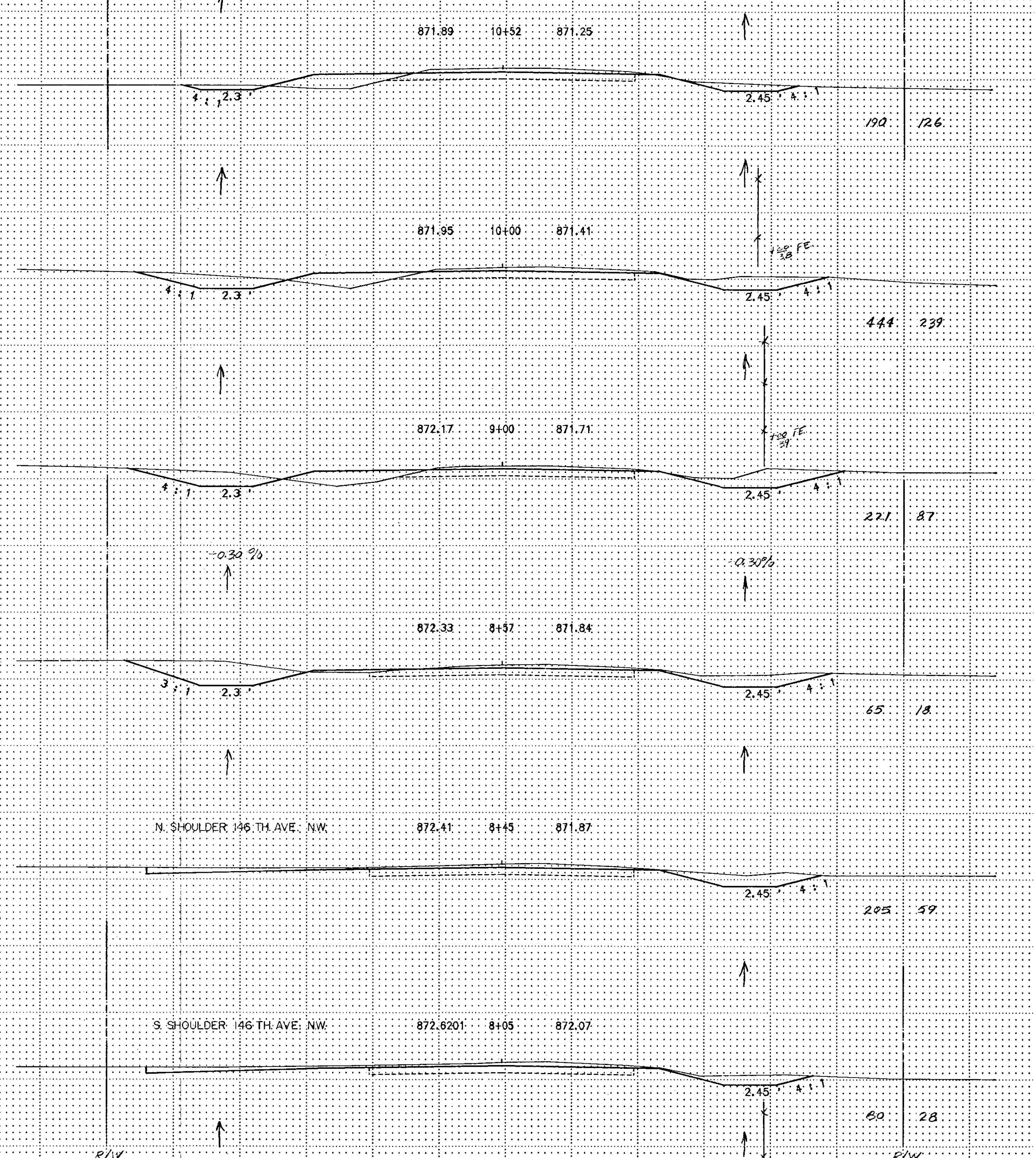
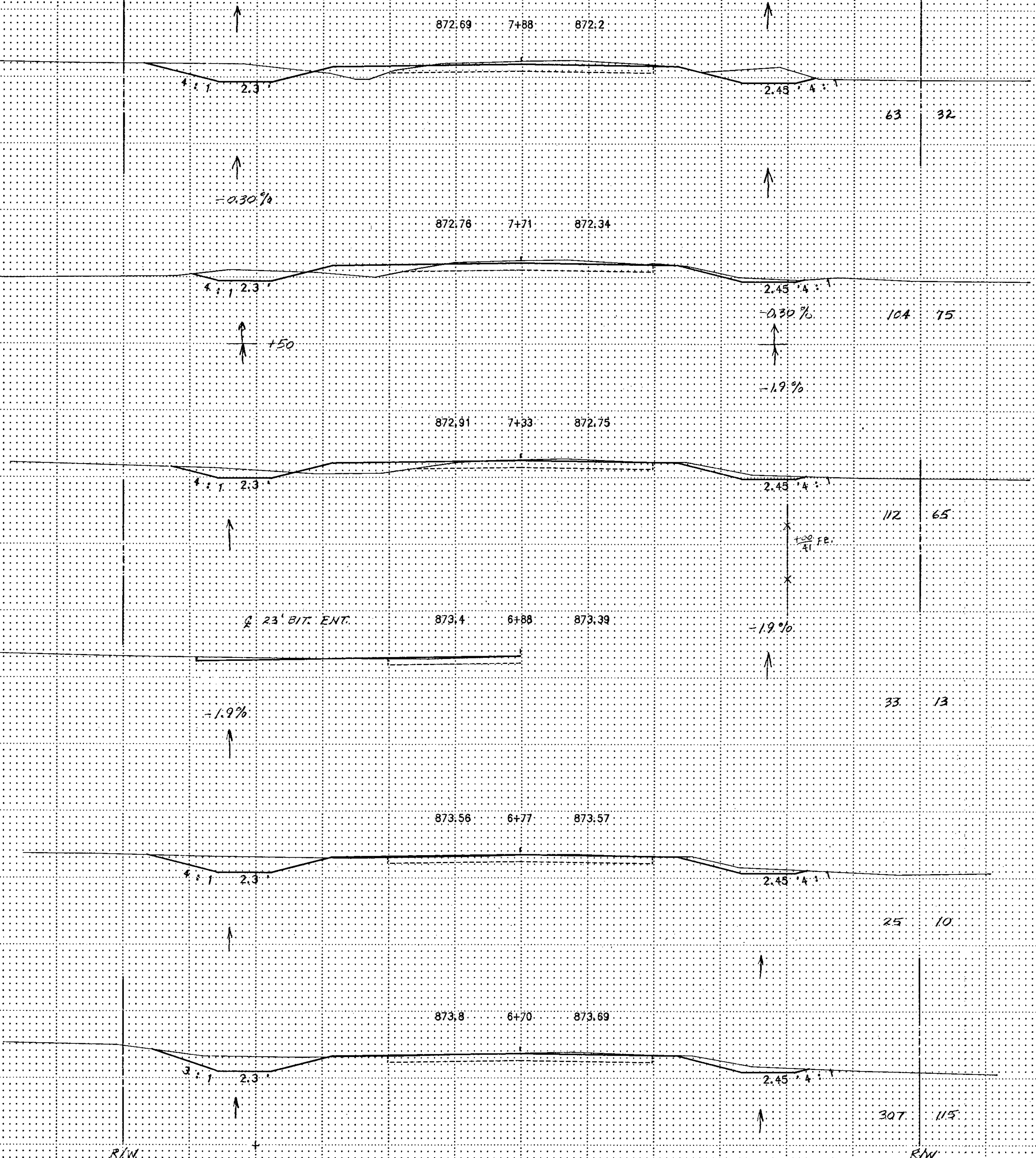
SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 2+62 TO STA. 6+00



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 6+70 TO STA. 10+52

State Proj. No.

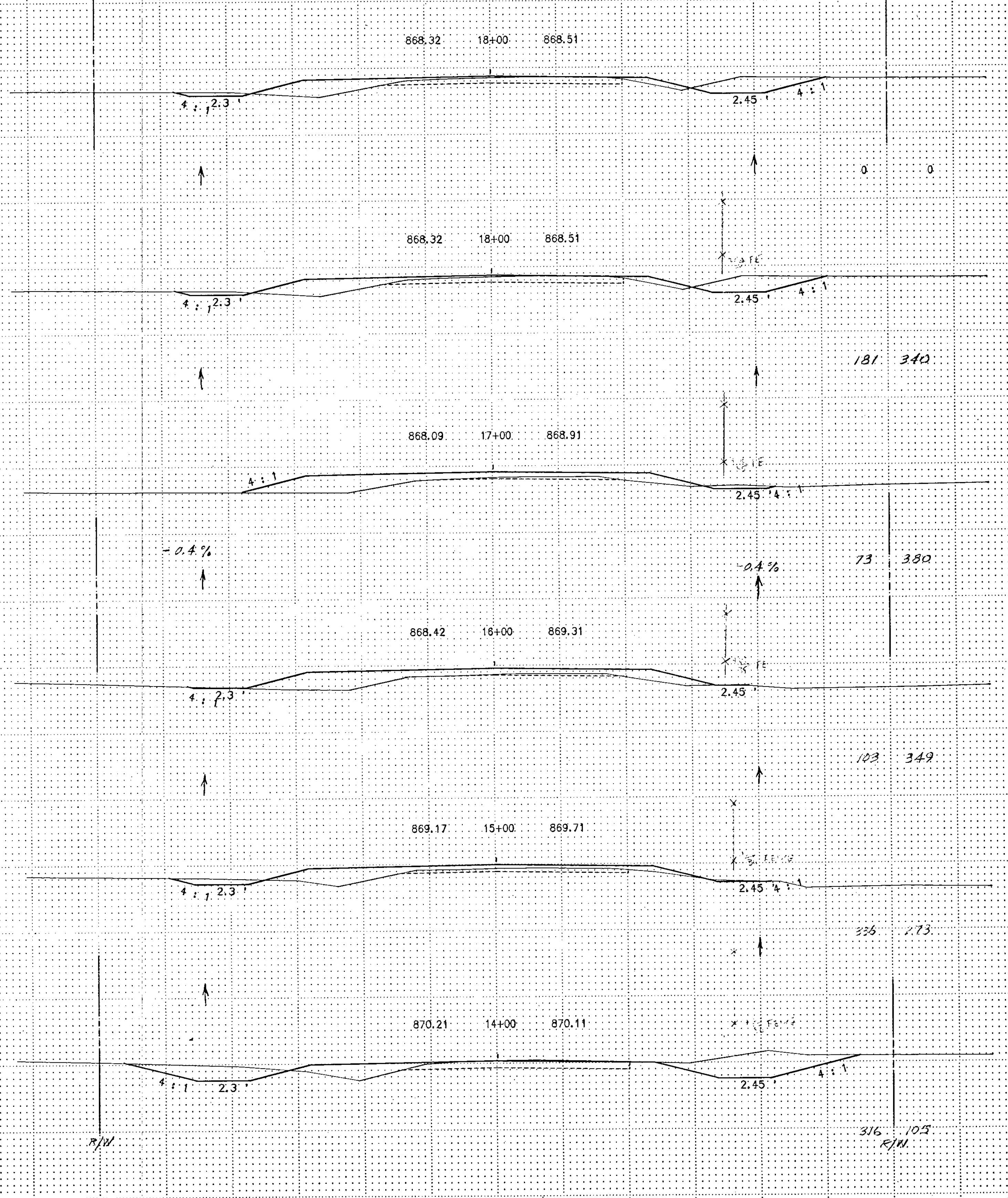
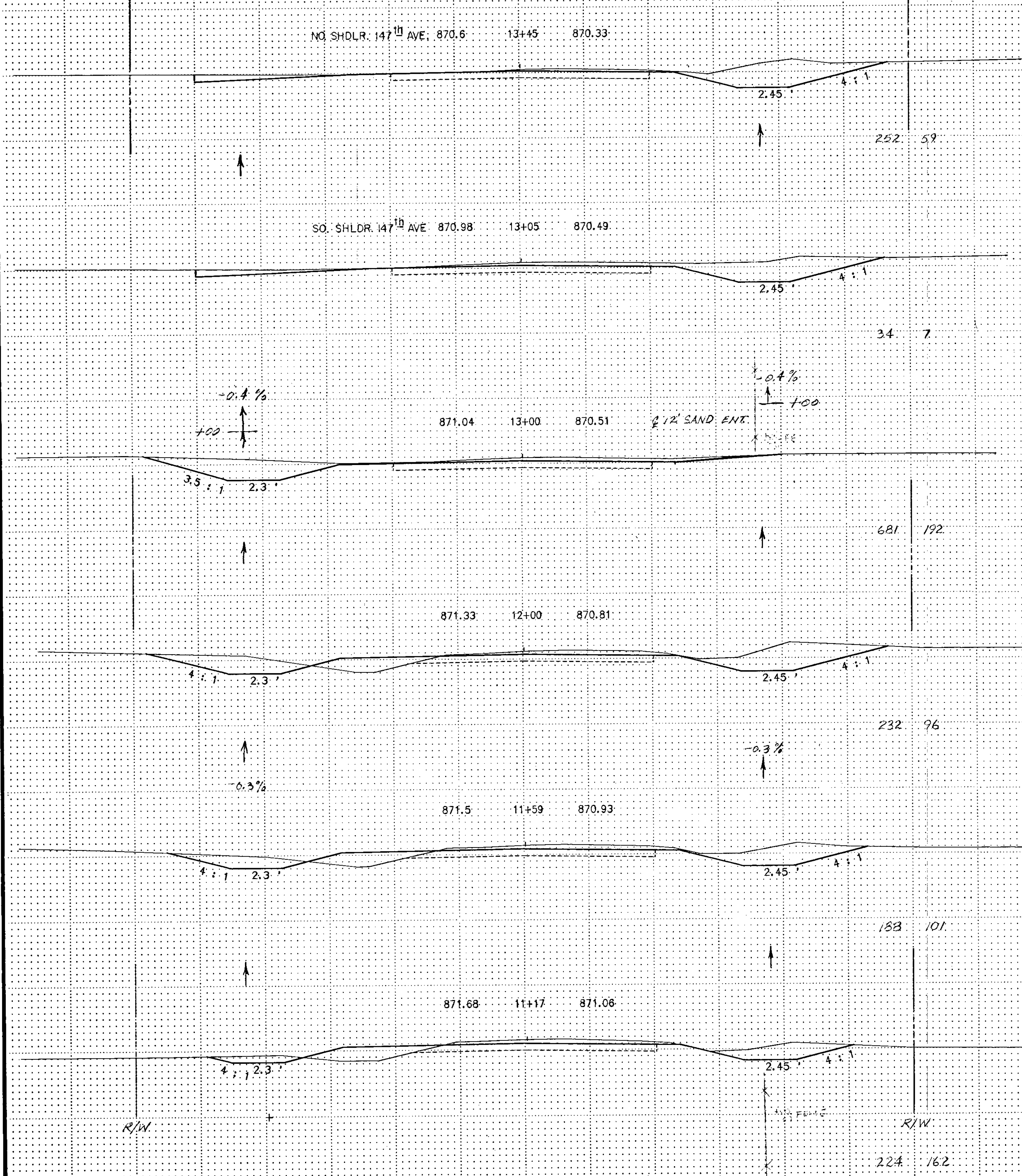
C.P. 87-04-83

Sheet No. 18 of 35 Sheets



EXCAVATION  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 11+17 TO STA. 18+00

COPY EQUIPMENT FORM 11 10031

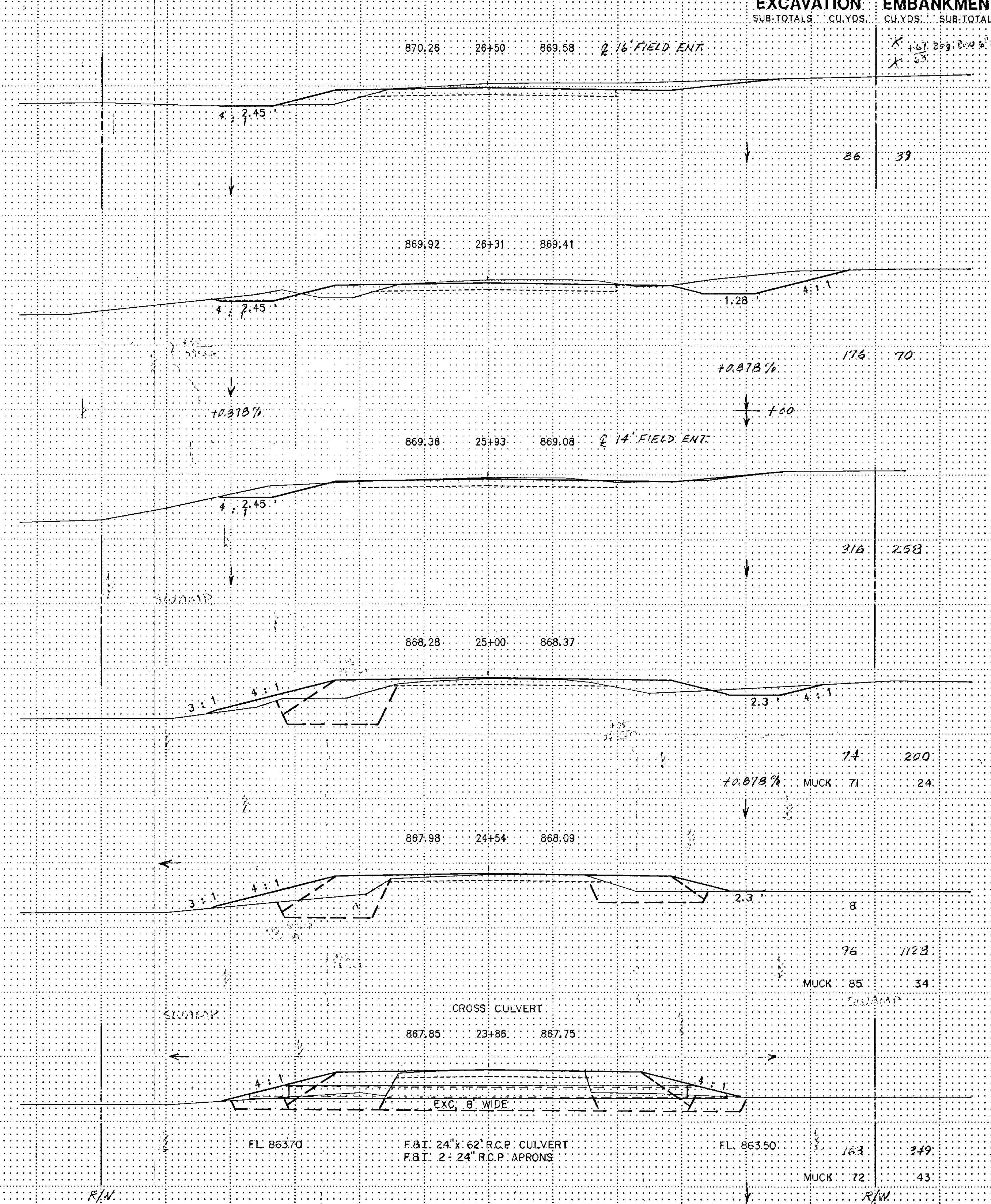
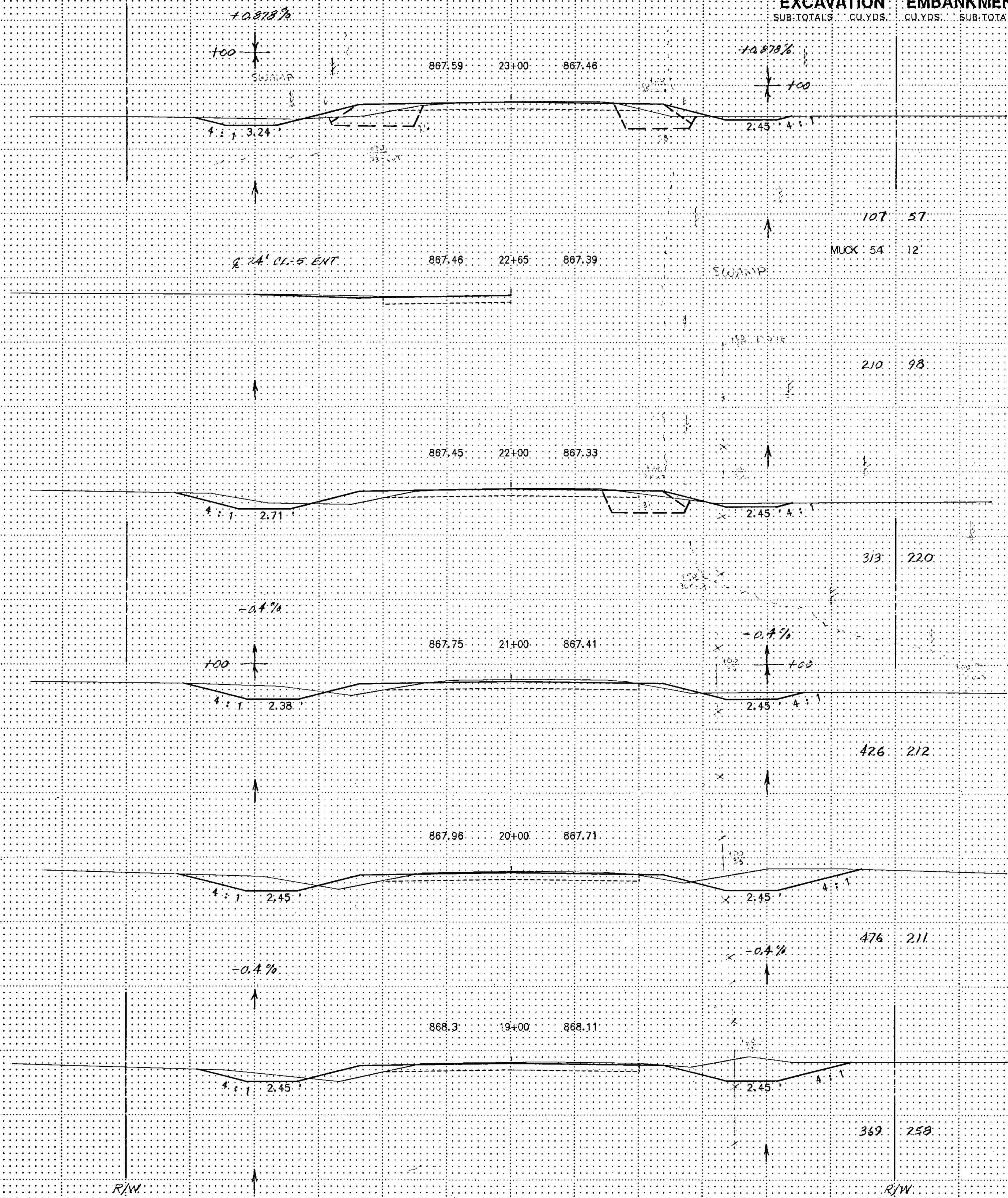


**EXCAVATION**  
SUB-TOTALS CU.YDS.

**EMBANKMENT**  
CU.YDS. SUB-TOTALS

**EXCAVATION**  
SUB-TOTALS CU.YDS.

**EMBANKMENT**  
CU.YDS. SUB-TOTALS



867.59 23+00 867.46

870.26 26+50 869.58 2' 16" FIELD ENT.

867.46 22+65 867.39

869.92 26+31 869.41

867.45 22+00 867.33

869.36 25+93 869.08 2' 14" FIELD ENT.

867.75 21+00 867.41

868.28 25+00 868.37

867.96 20+00 867.71

867.98 24+54 868.09

868.3 19+00 868.11

867.85 23+88 867.75

107 57

MUCK 54 12

210 98

313 220

426 212

476 211

369 258

86 39

176 70

316 258

74 200

96 1128

163 249

SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

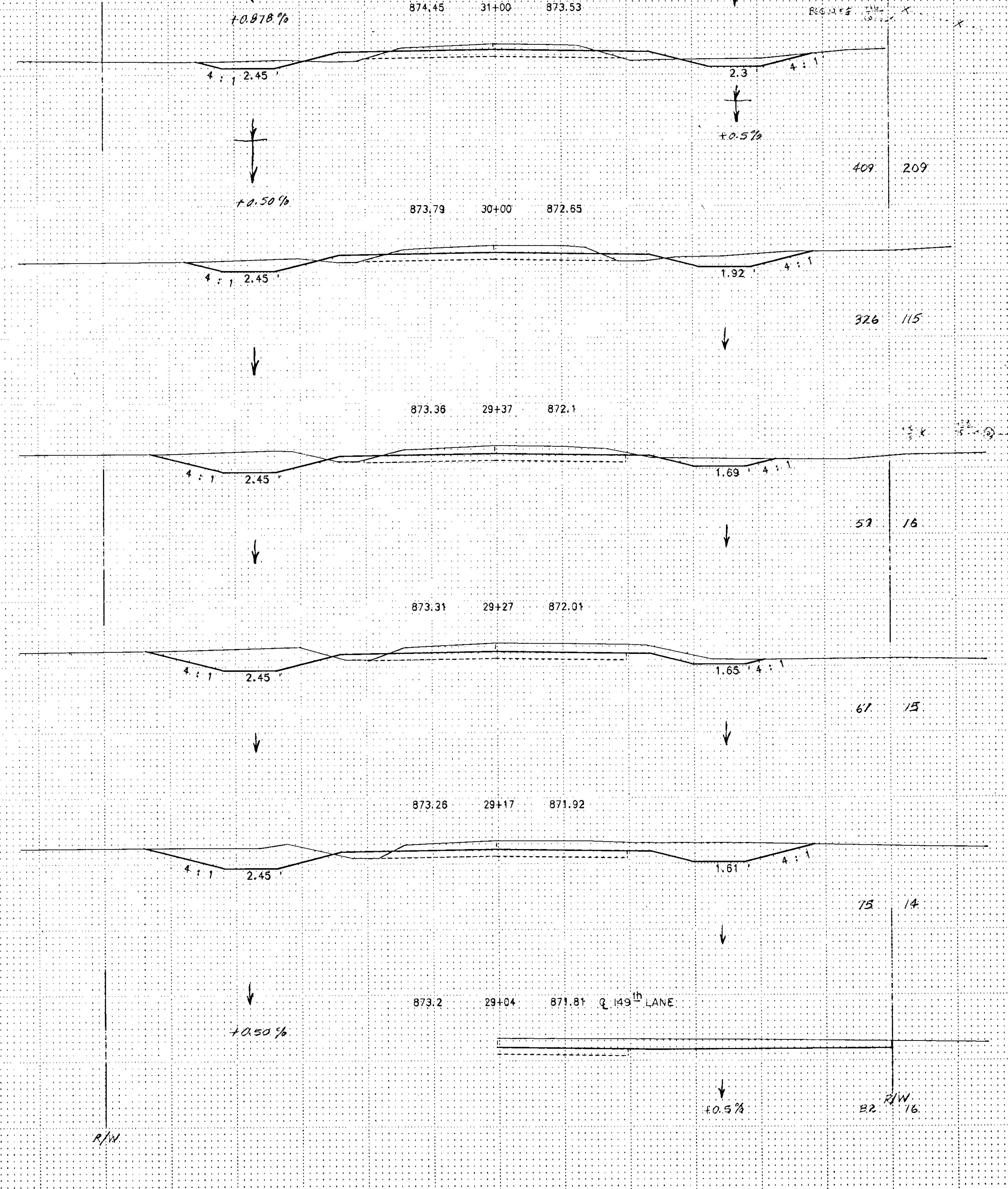
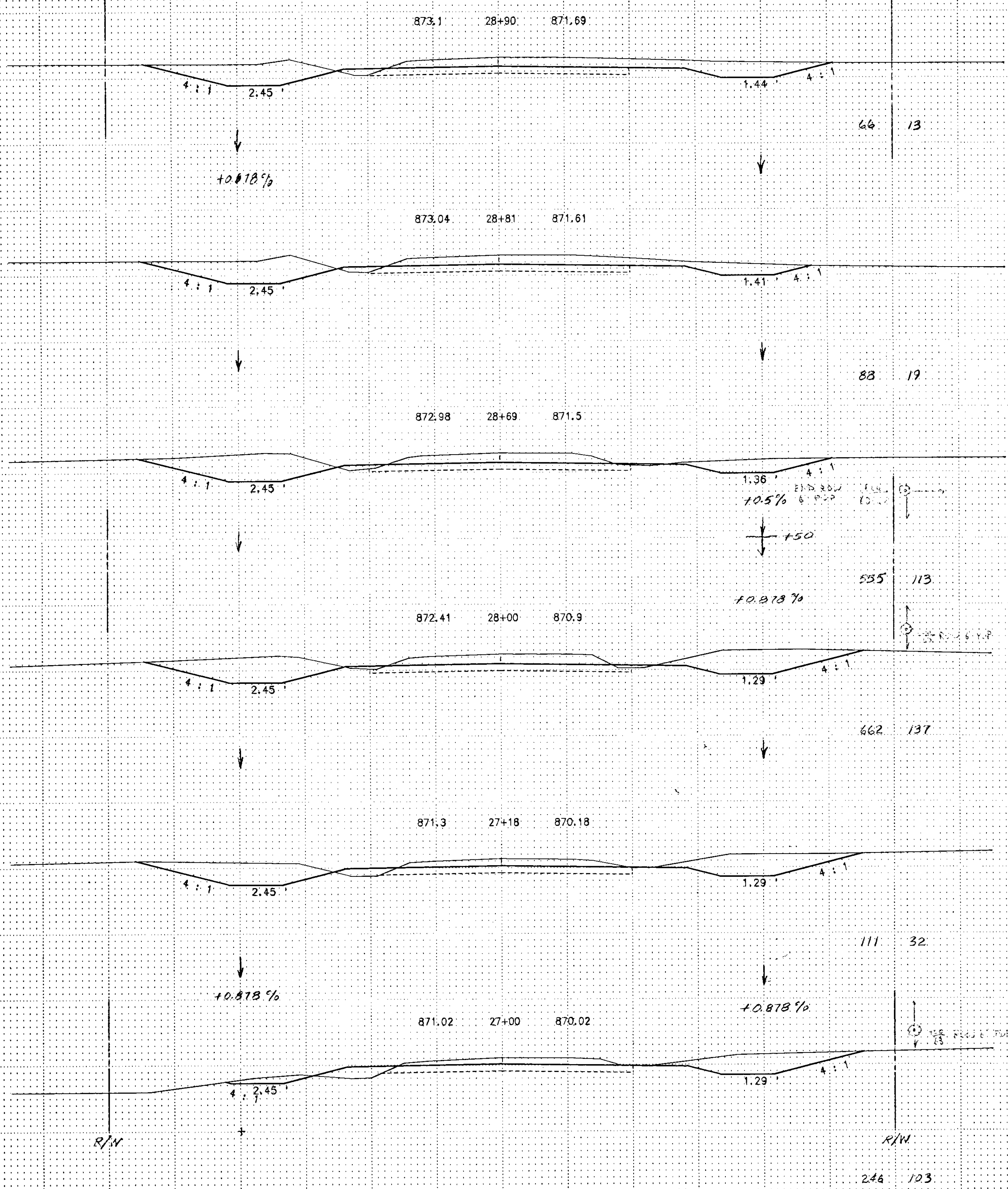
STA. 19+00 TO STA. 26+50

COPY EQUIPMENT FORM # 1001



EXCAVATION  
SUB-TOTALS CU.YDS. EMBANKMENT  
CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS. EMBANKMENT  
CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 27+00 TO STA. 31+00

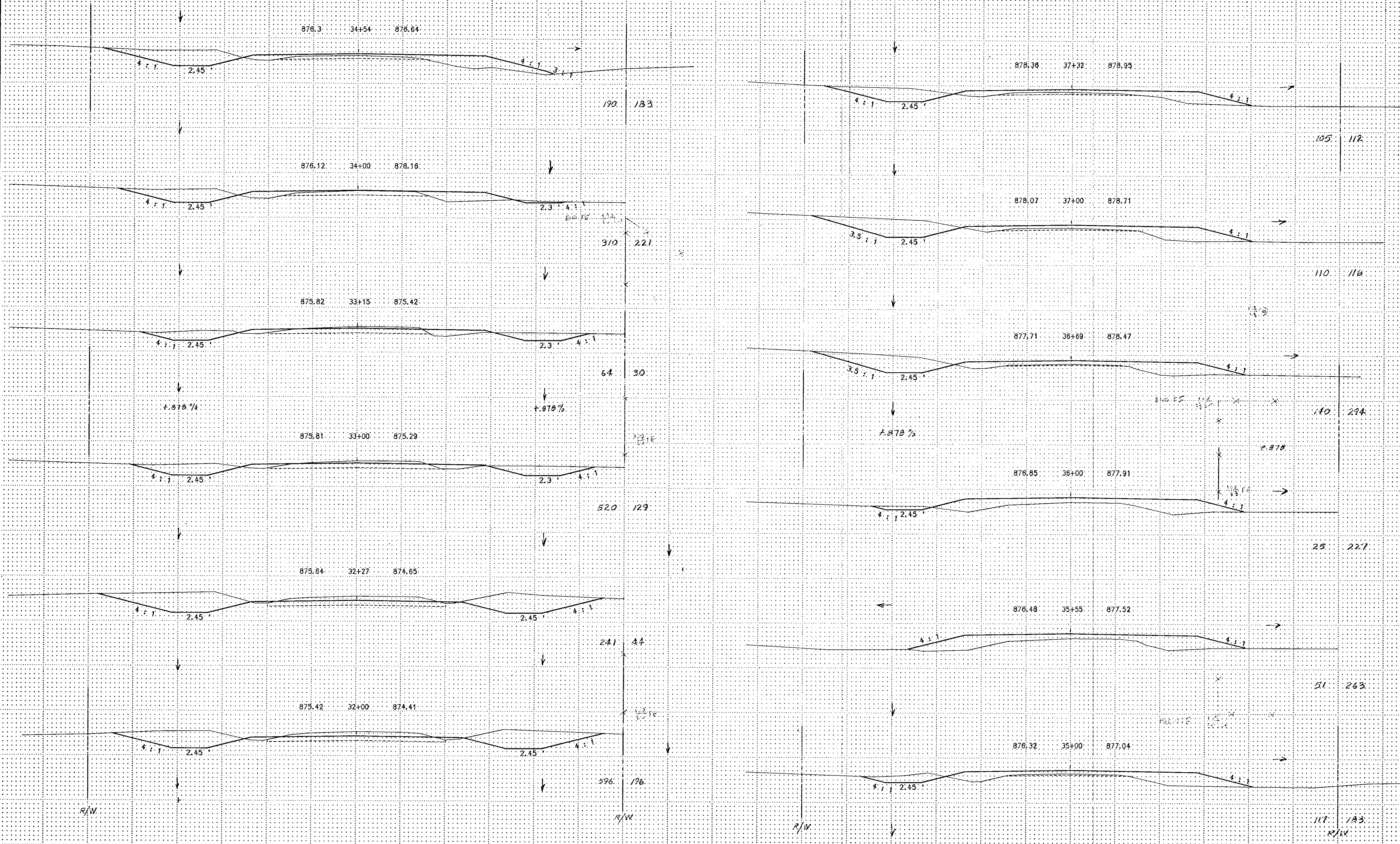


**EXCAVATION**  
SUB-TOTALS CU.YDS.

**EMBANKMENT**  
CU.YDS. SUB-TOTALS

**EXCAVATION**  
SUB-TOTALS CU.YDS.

**EMBANKMENT**  
CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

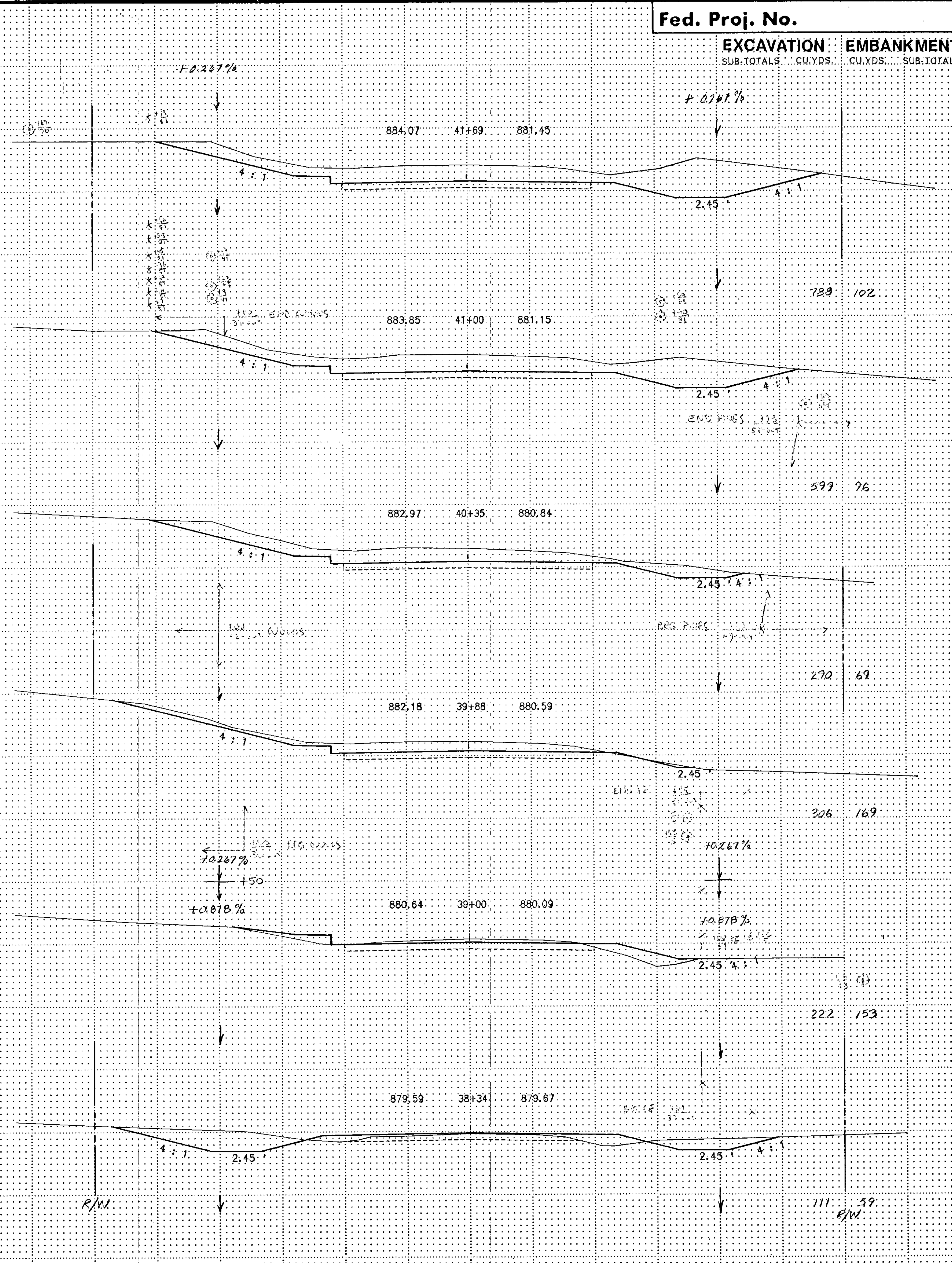
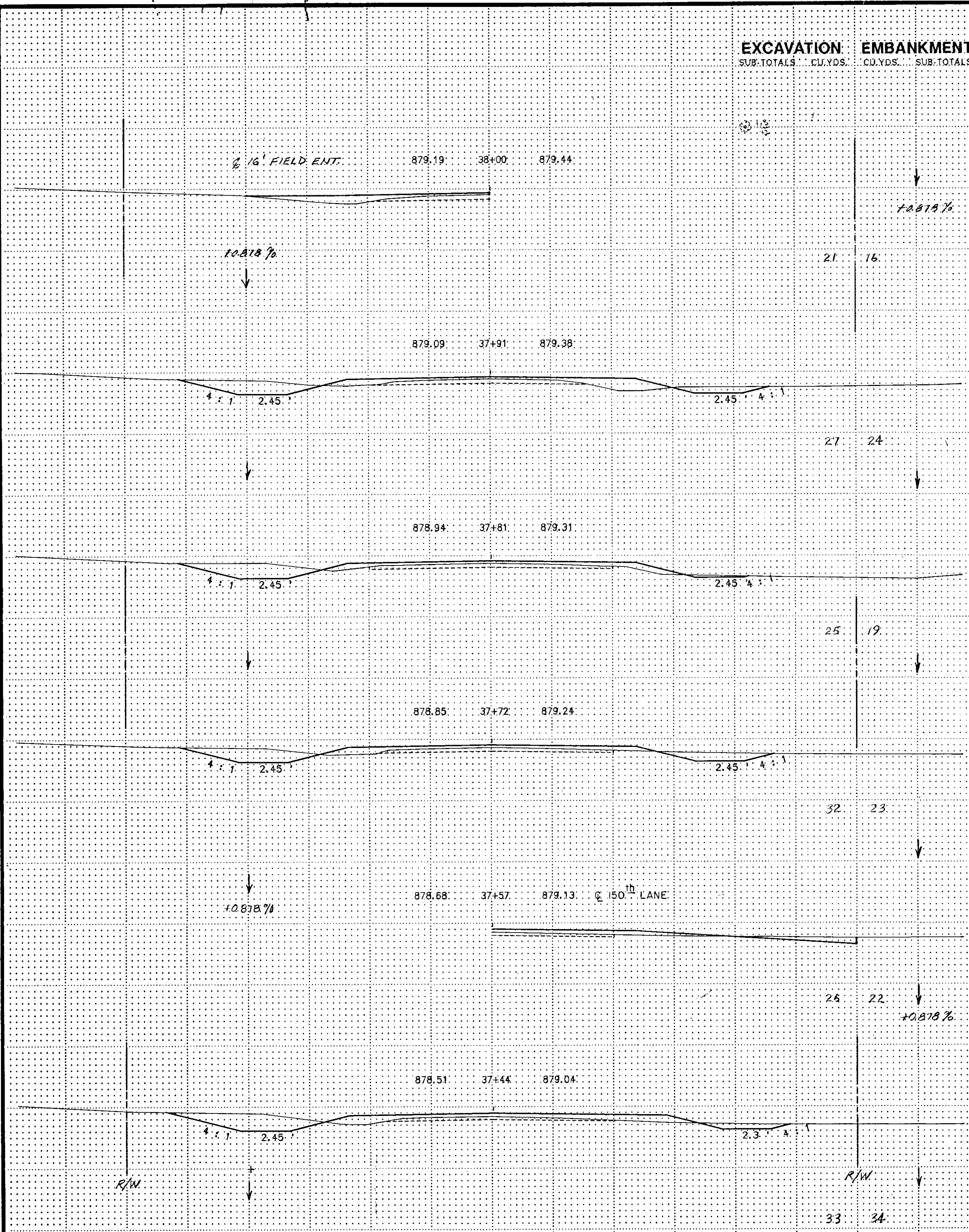
STA. 32+00 TO STA. 37+32

COPY EQUIPMENT FORM 81 (2002)



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

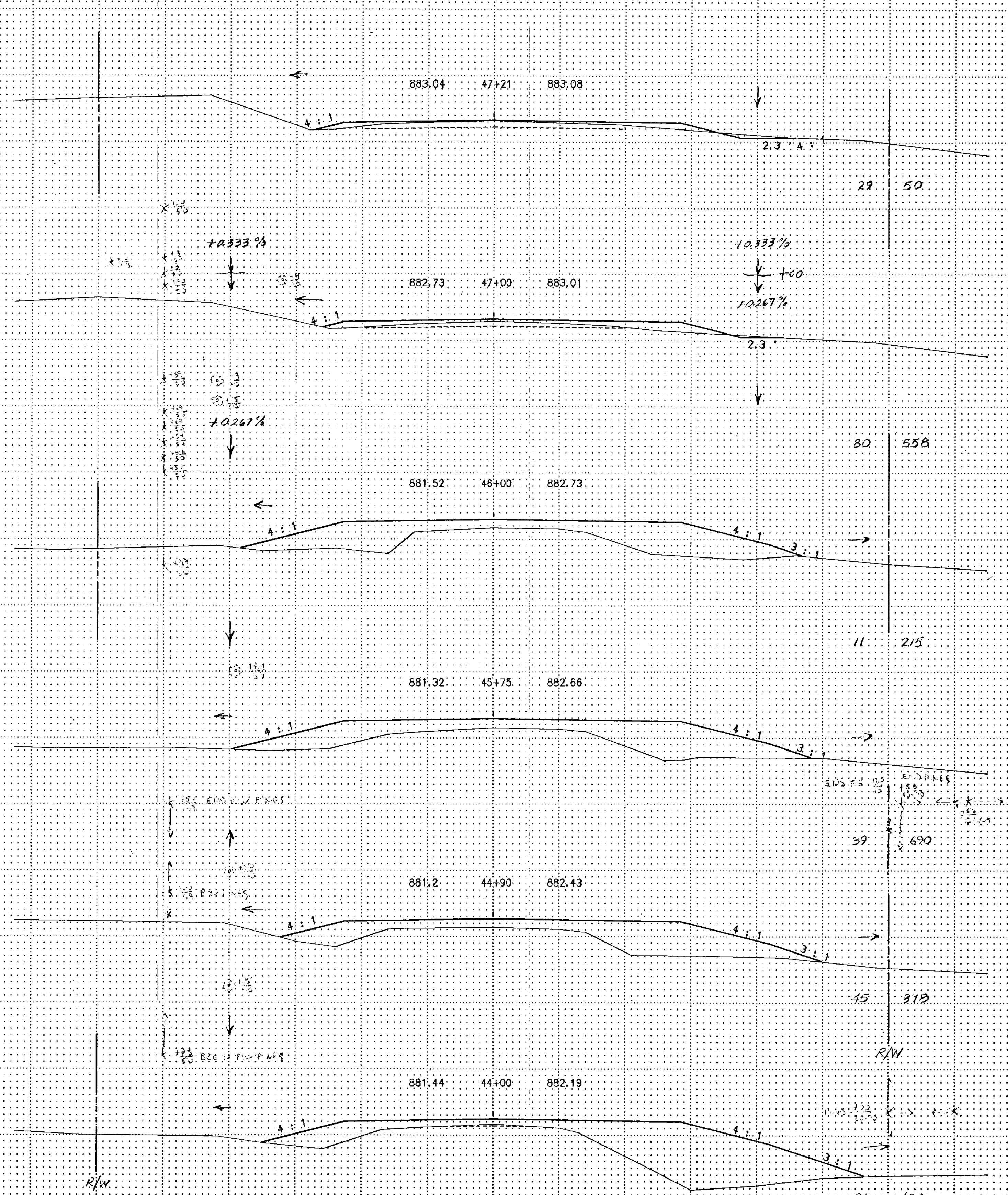
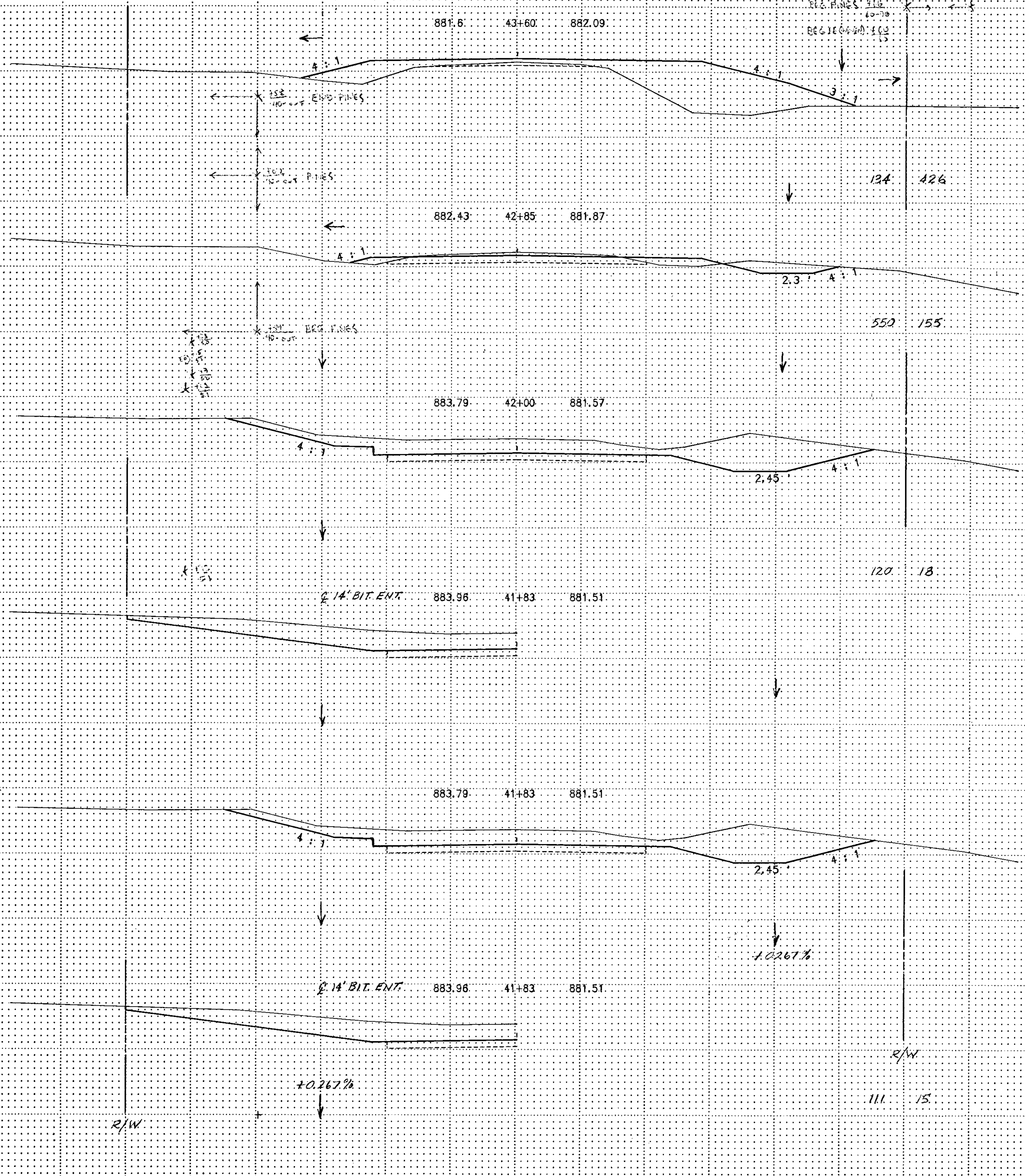
STA. 37+44 TO STA. 41+69

COPY COMMENTS FORM #1 1982



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 41+83 TO STA. 47+21

COPY EQUIPMENT FORM 81 (8/82)

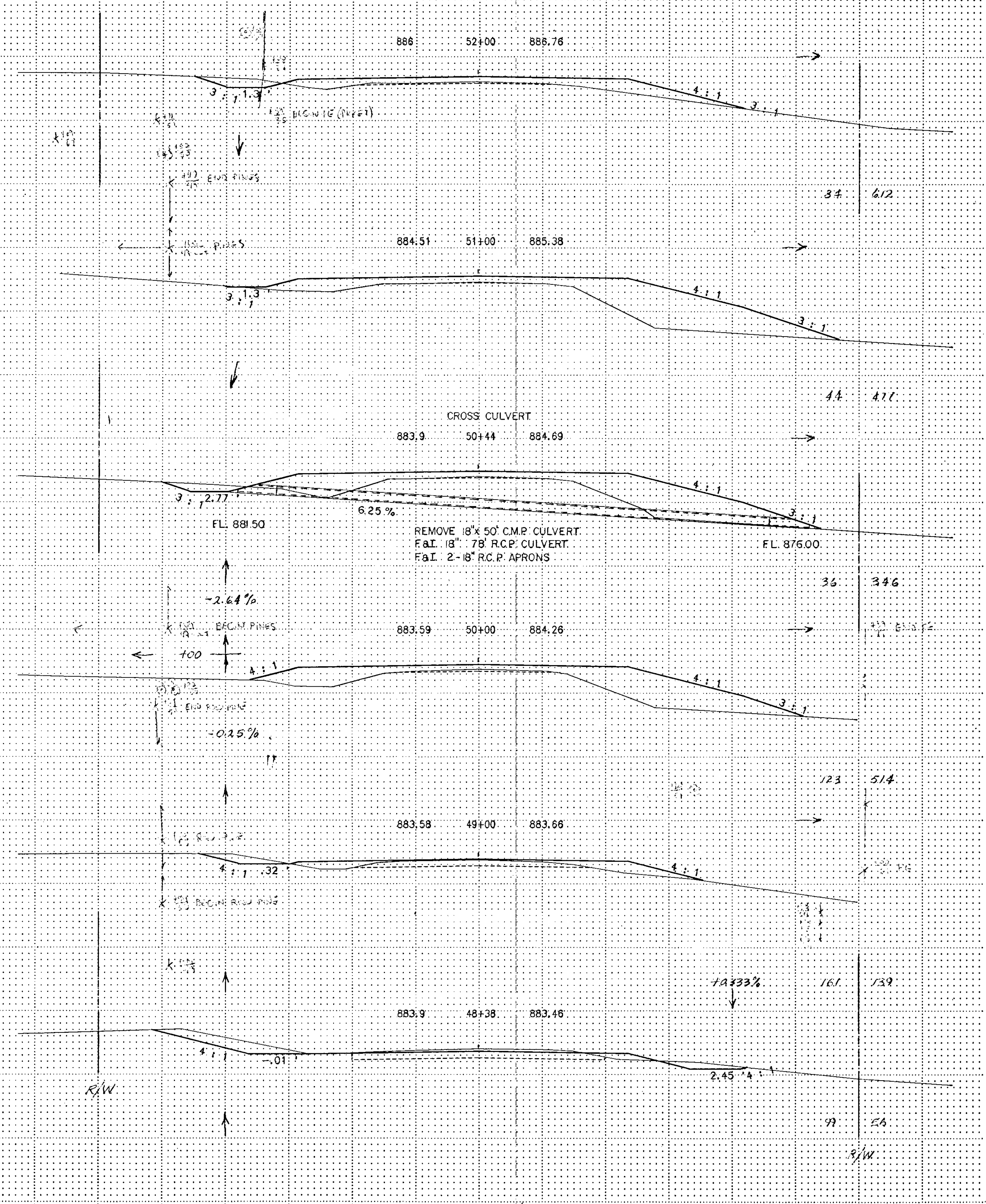
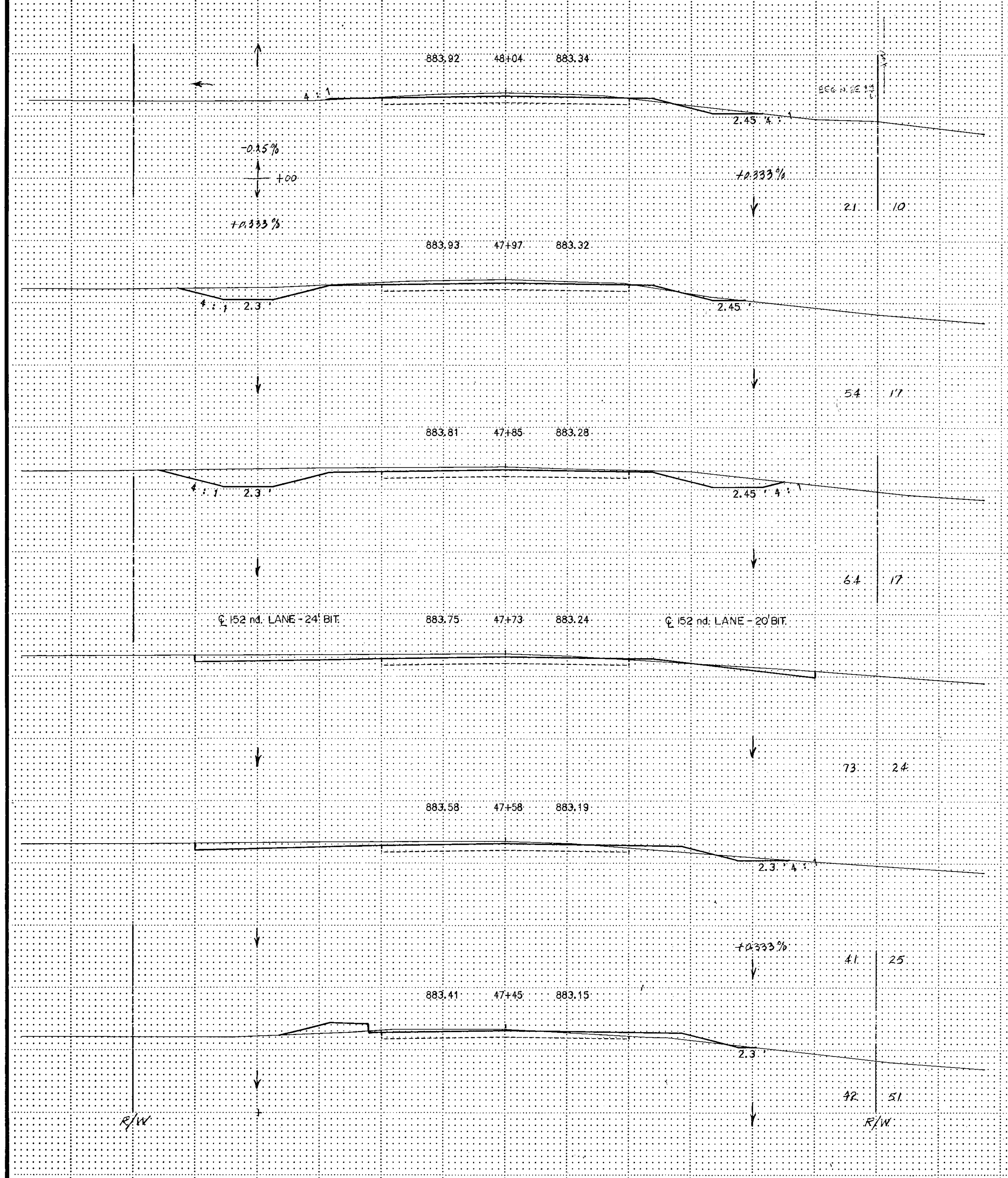


EXCAVATION  
SUB-TOTALS CU.YDS.

EMBANKMENT  
CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS.

EMBANKMENT  
CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

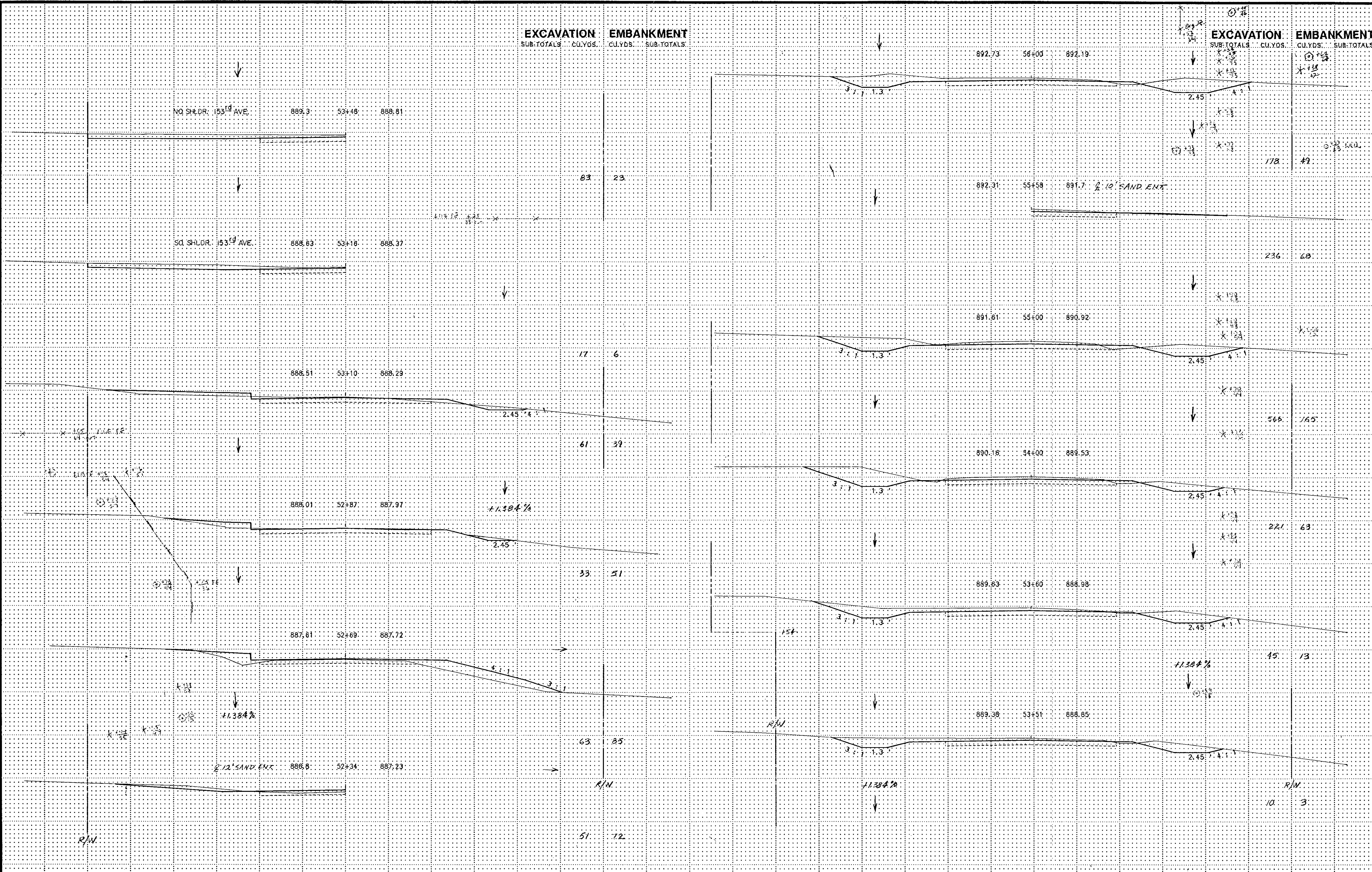
STA. 47+45 TO STA. 52+00

COPY EQUIPMENT FORM # 80021



EXCAVATION EMBANKMENT  
 SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
 SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA: 52+34 TO STA: 56+00

State Proj. No.

C.P. 87-04-83

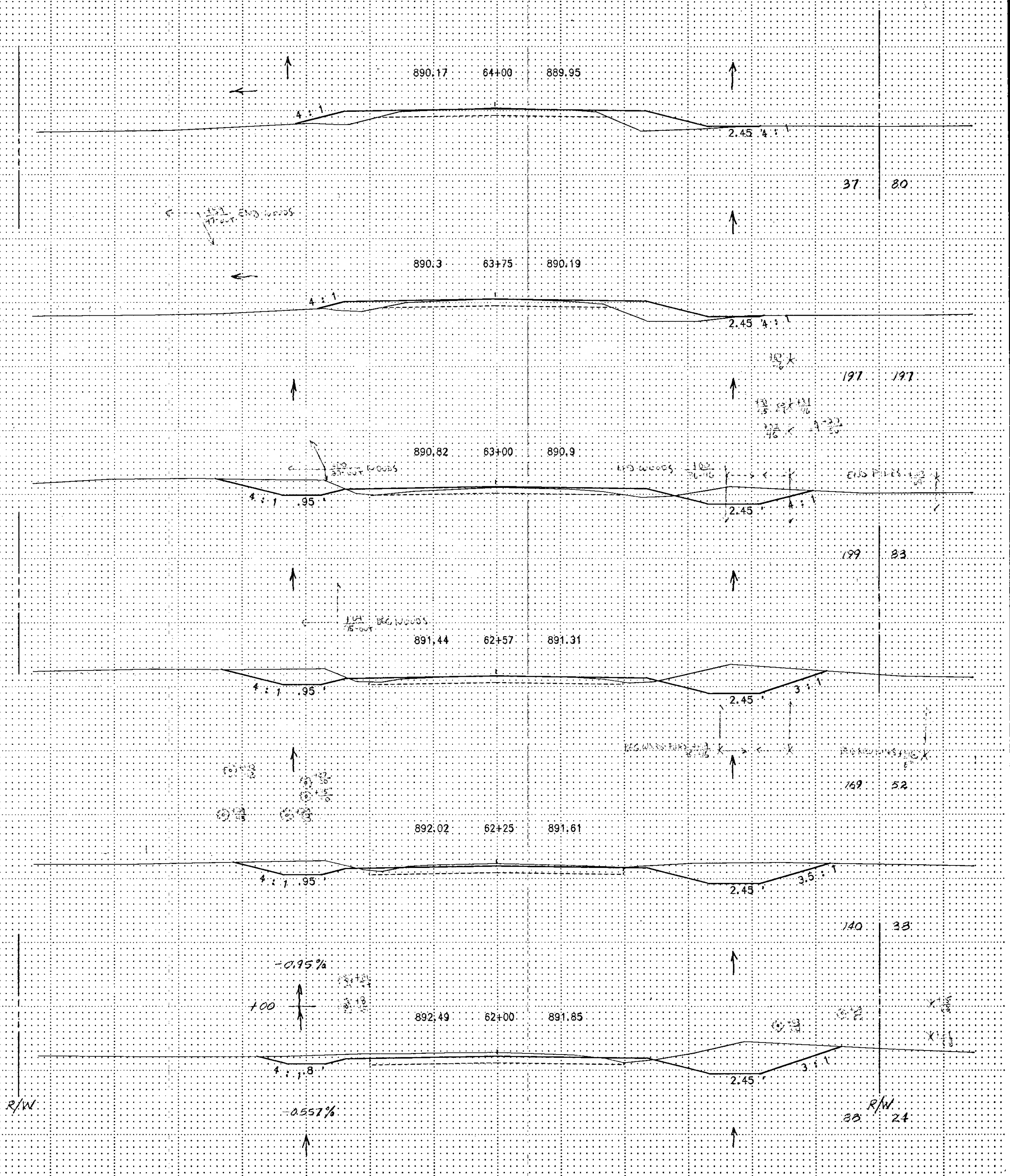
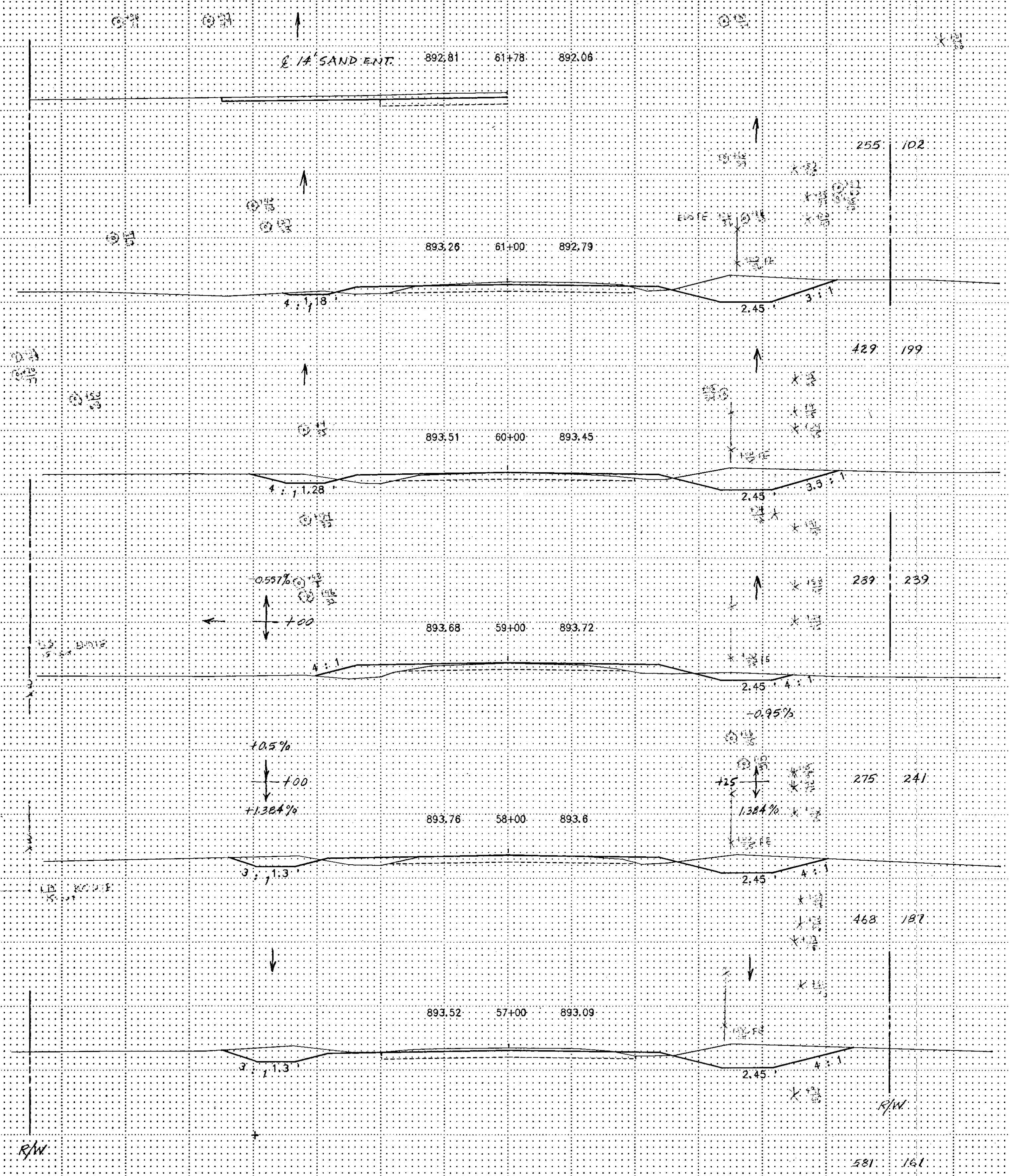
Sheet No. 126 of 35 Sheets

ILLUSTRATION FOR CROSS SECTION, BIT 1000



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

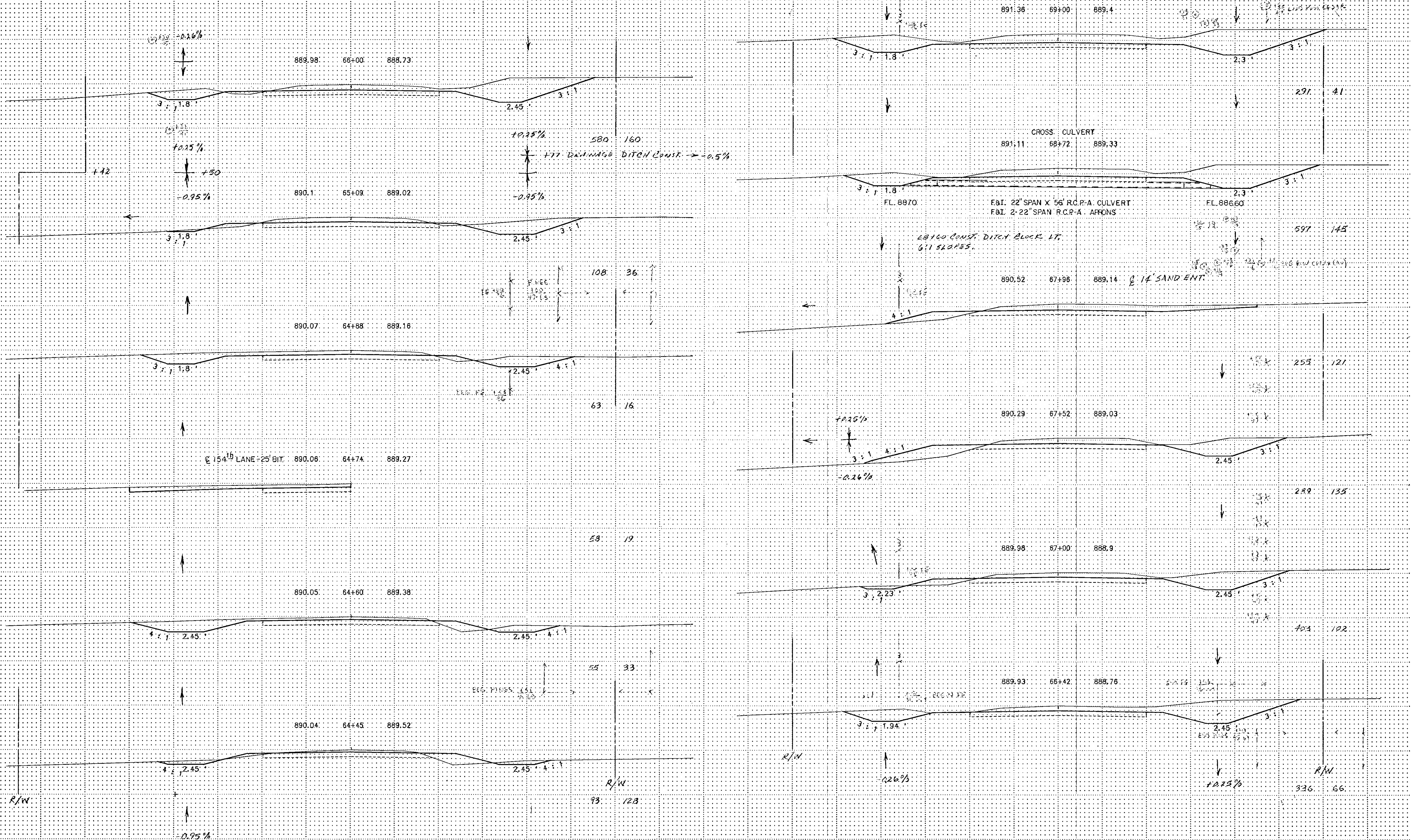
STA. 57+00 TO STA. 64+00

COPY EQUIPMENT FORM BY 80021



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

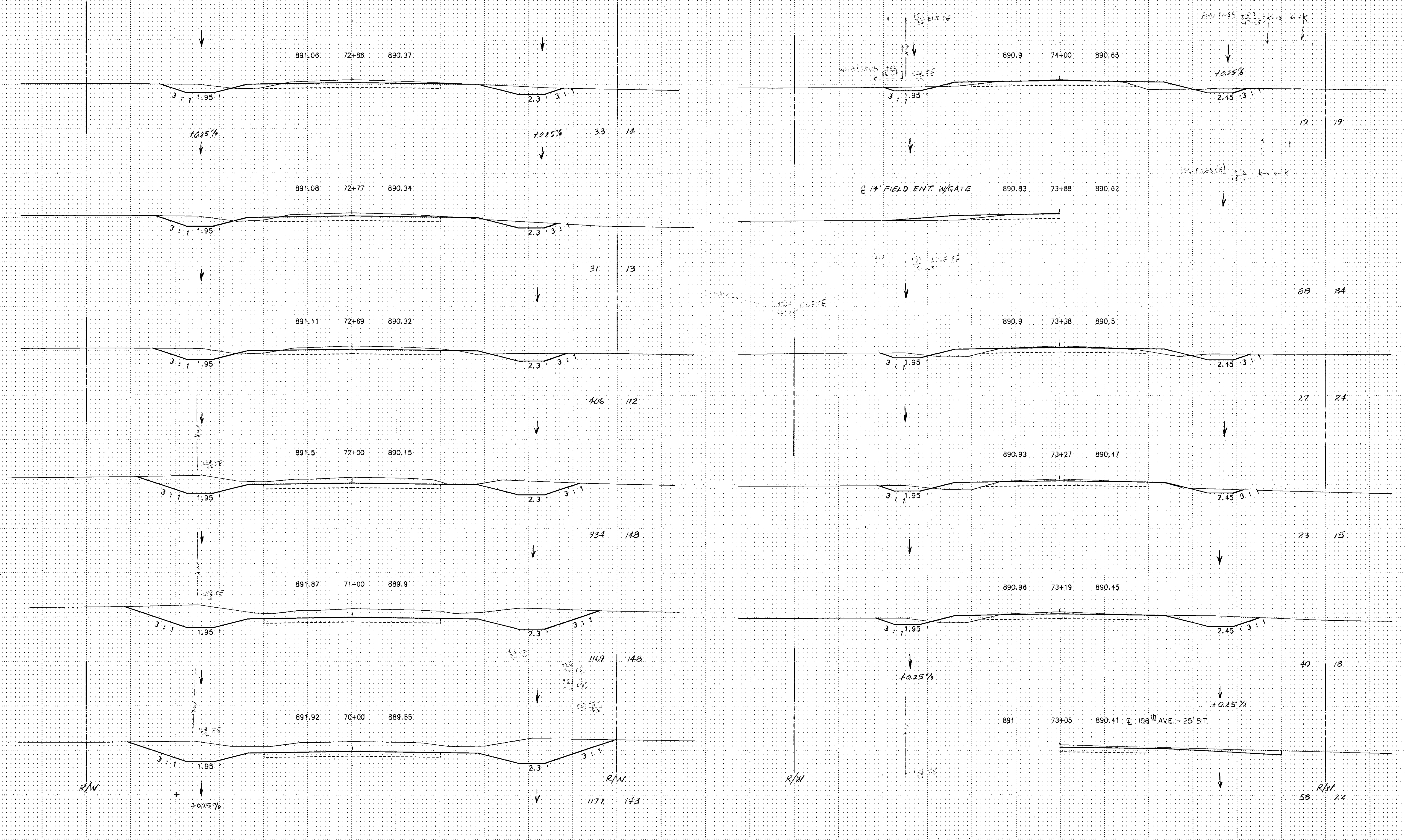
STA. 64+45 TO STA. 69+00

COPY DOCUMENT FROM 11 2021



EXCAVATION  
SUB-TOTALS CU.YDS. EMBANKMENT  
CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS. EMBANKMENT  
CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

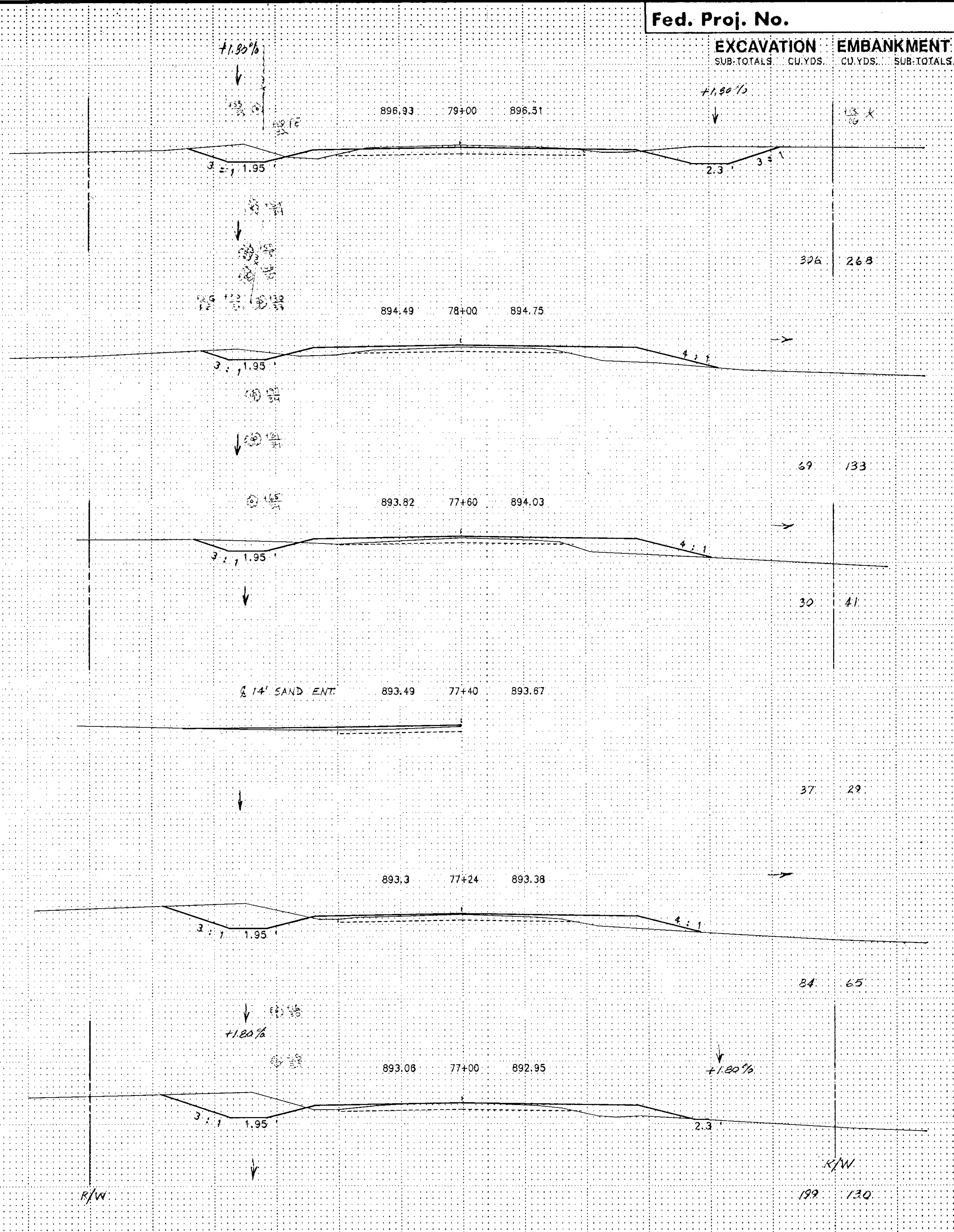
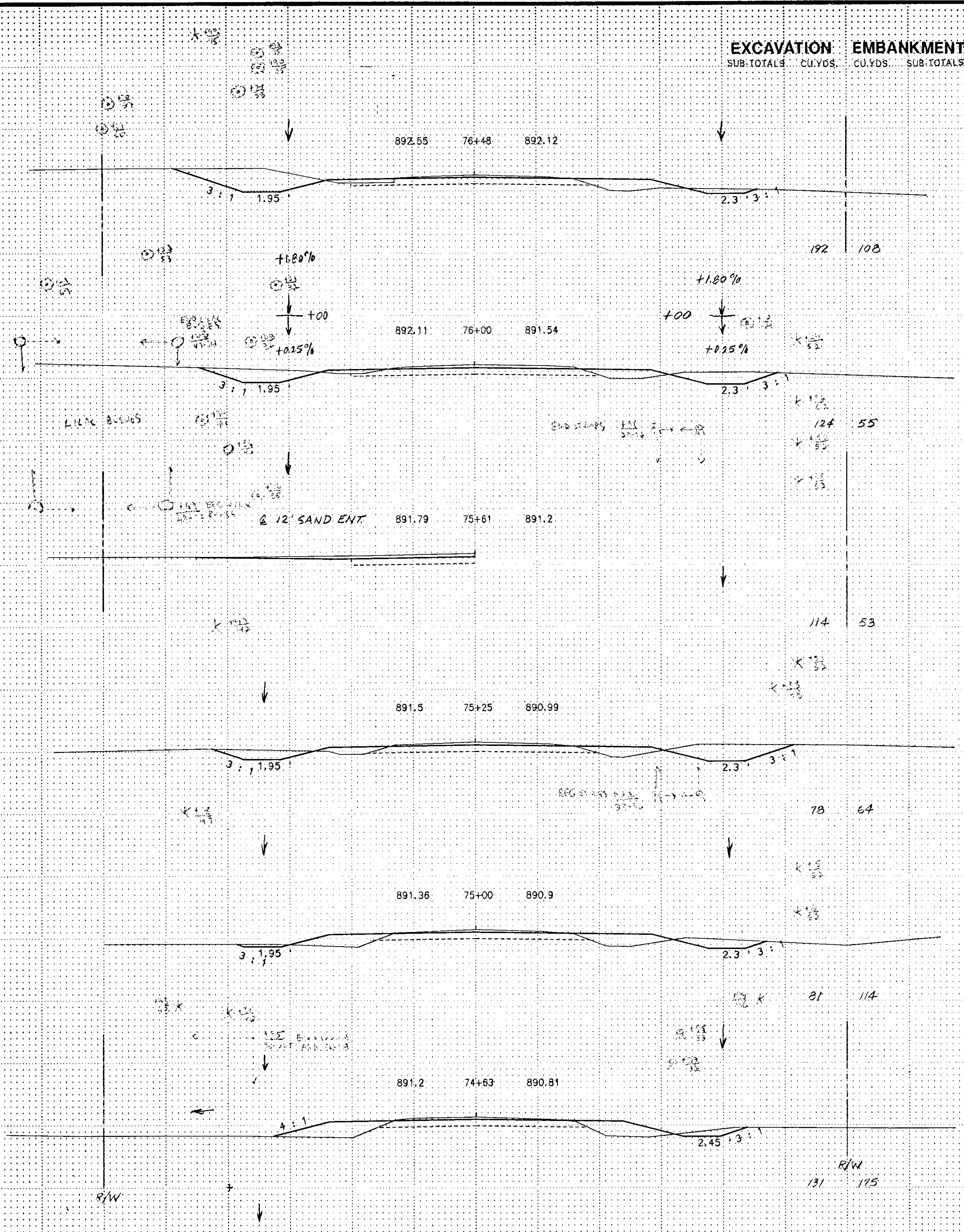
STA. 70+00 TO STA. 74+00

COPY EQUIPMENT FORM 811 8023



EXCAVATION SUB-TOTALS CU.YDS. EMBANKMENT CU.YDS. SUB-TOTALS

EXCAVATION SUB-TOTALS CU.YDS. EMBANKMENT CU.YDS. SUB-TOTALS



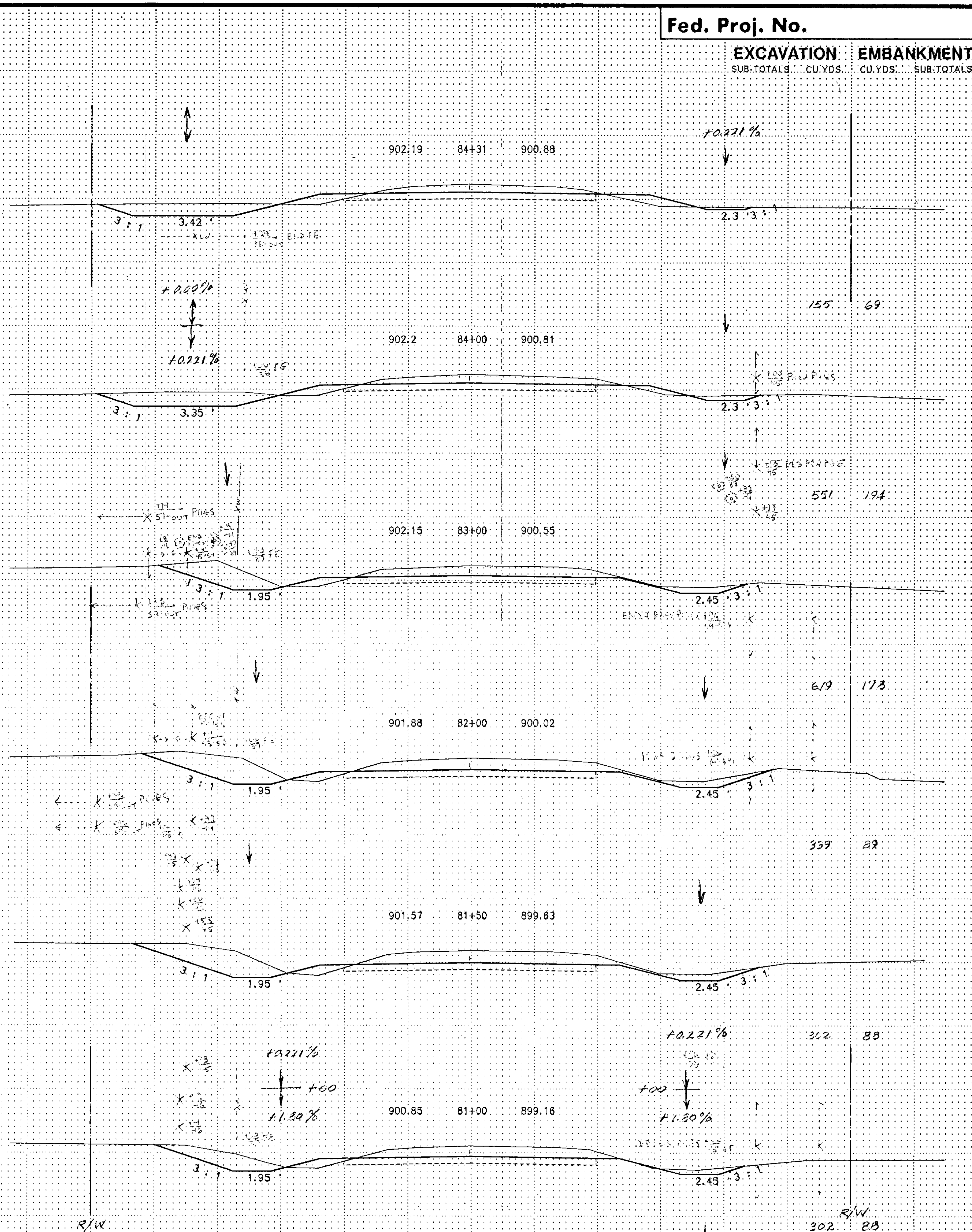
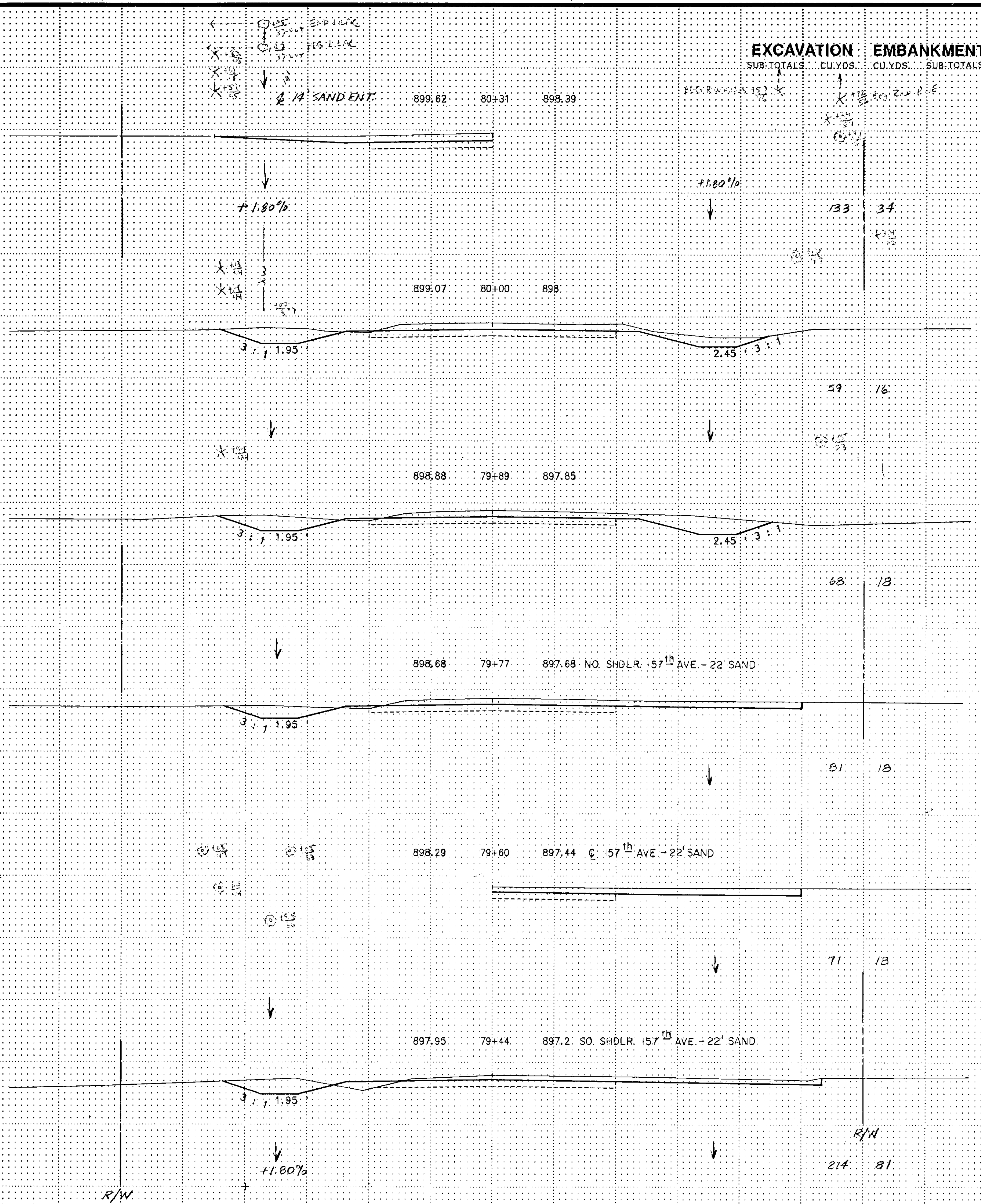
SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 74+63 TO STA. 79+00



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. SUB-TOTALS



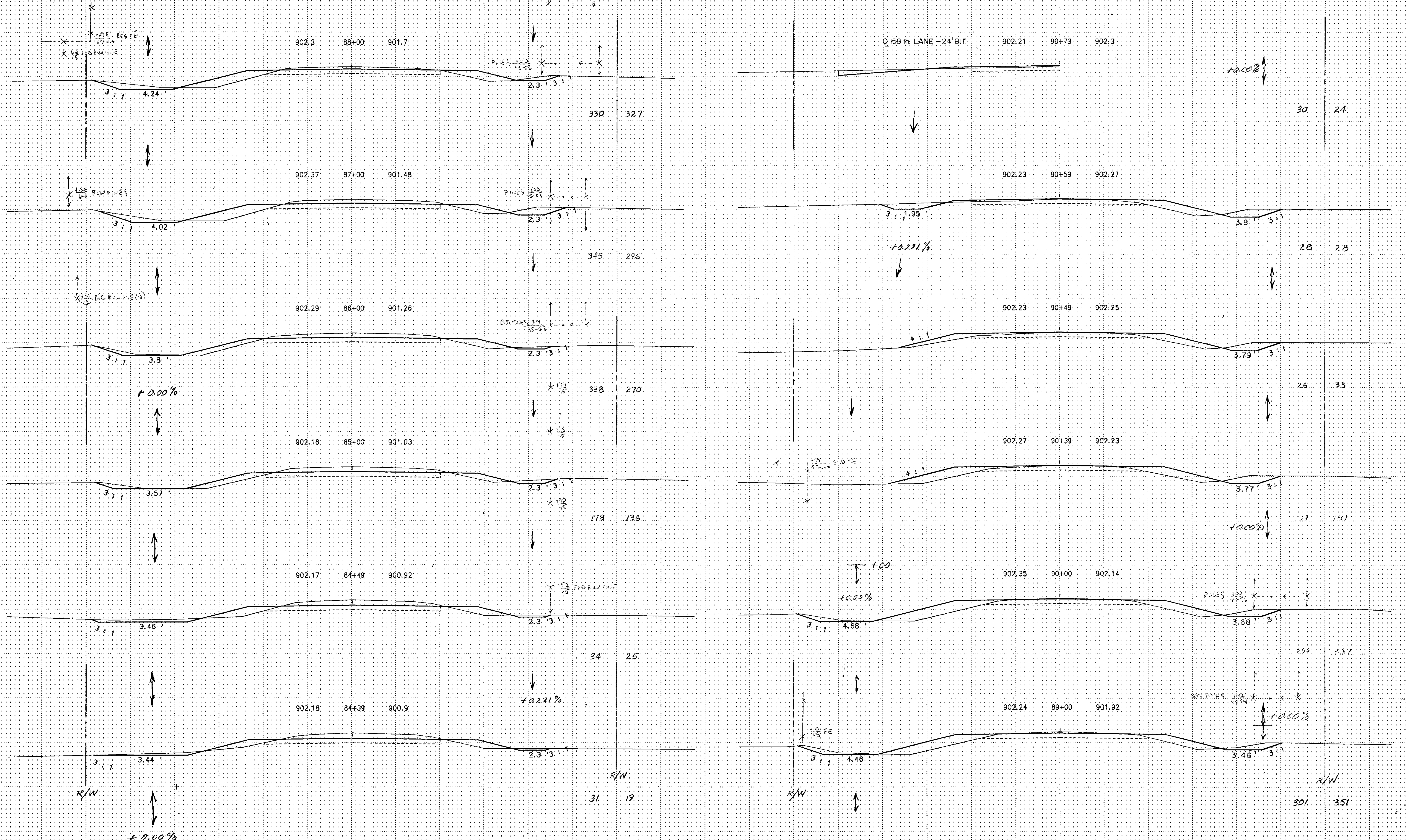
SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 79+44. TO STA. 84+31



EXCAVATION  
SUB-TOTALS CU.YDS.  
EMBANKMENT  
CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS.  
EMBANKMENT  
CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

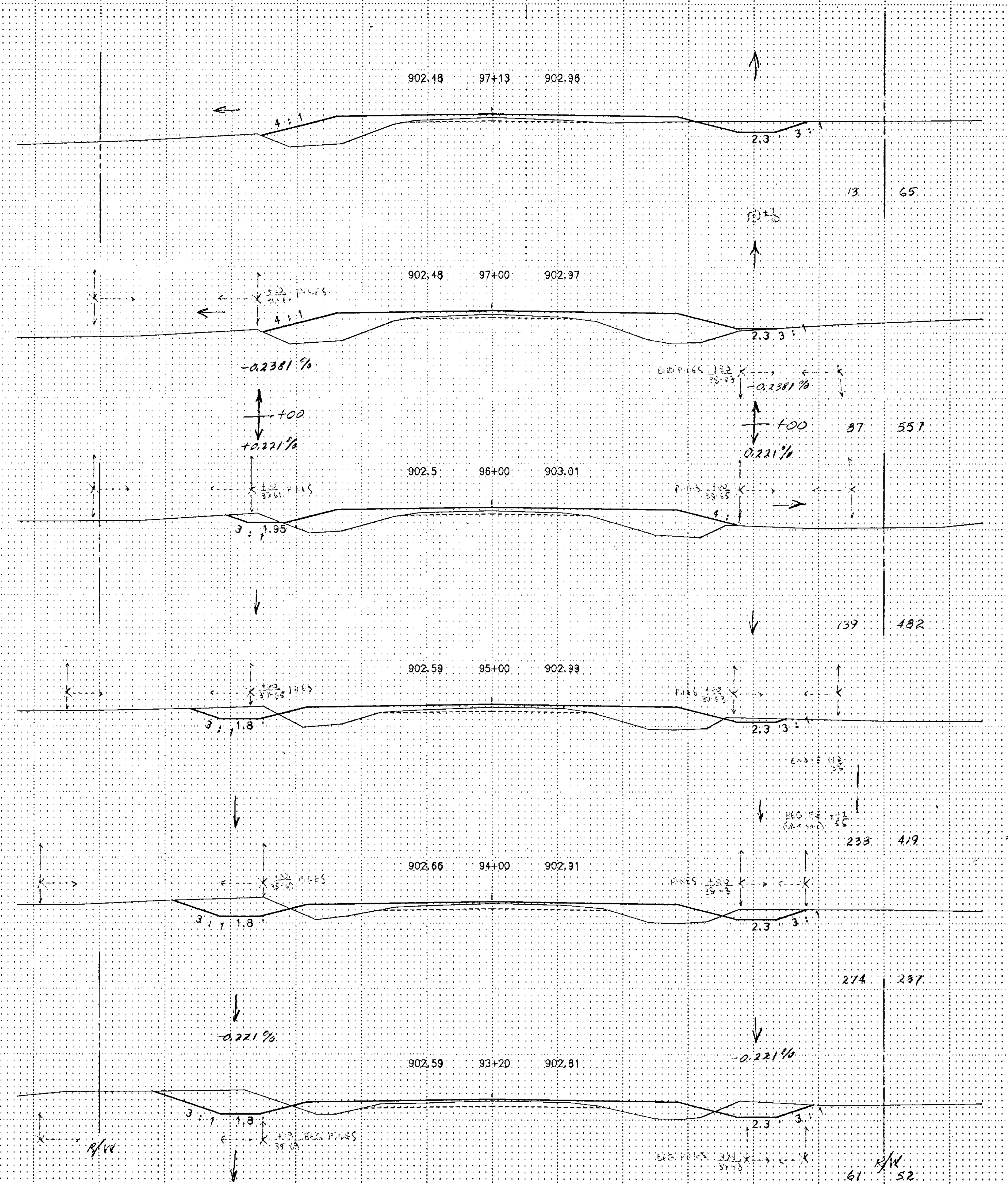
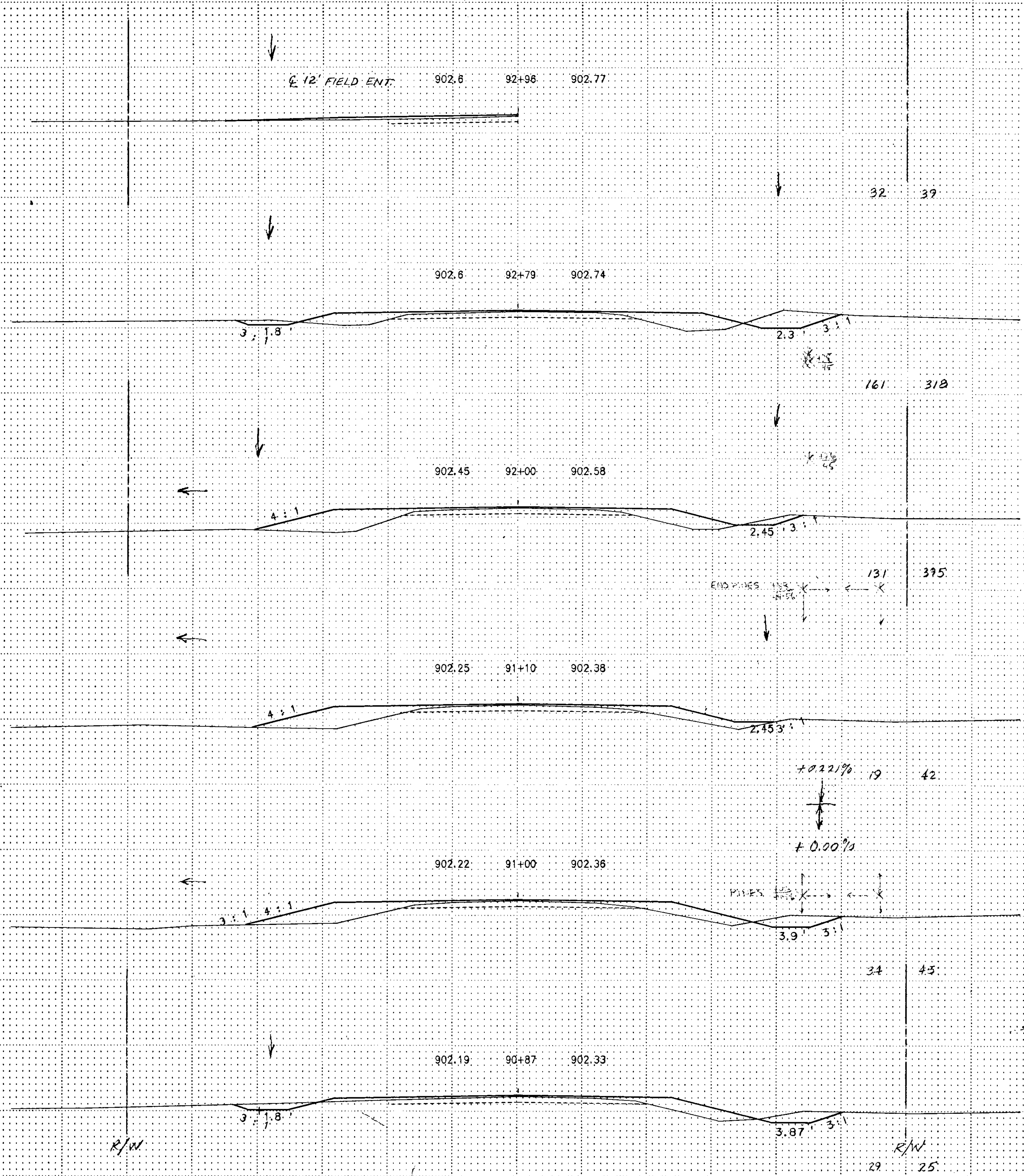
STA. 84+39 TO STA. 90+73

COPY EQUIPMENT FORM 81 (8/62)



EXCAVATION  
SUB-TOTALS CU.YDS. SUB-TOTALS

EXCAVATION  
SUB-TOTALS CU.YDS. SUB-TOTALS



SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

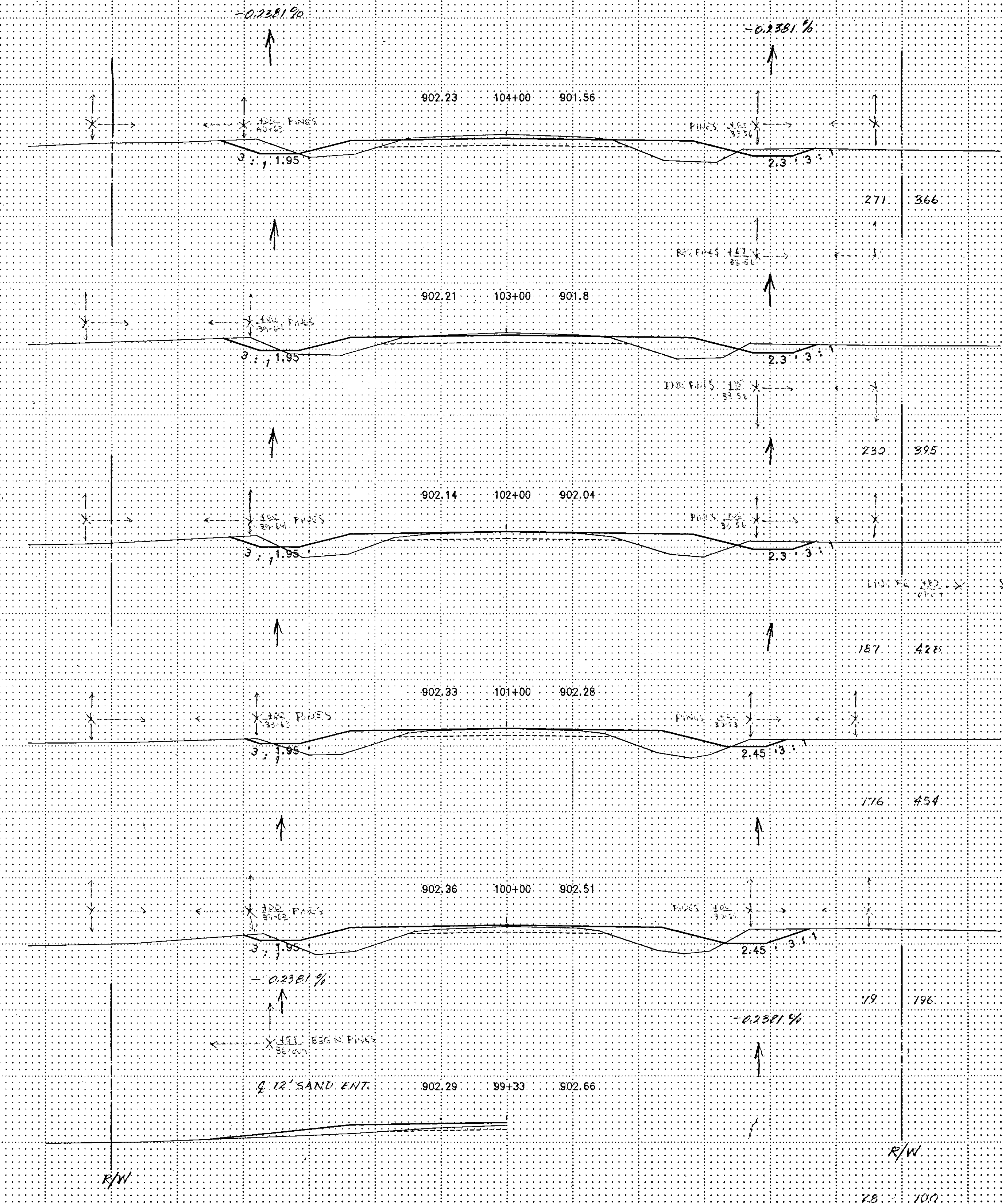
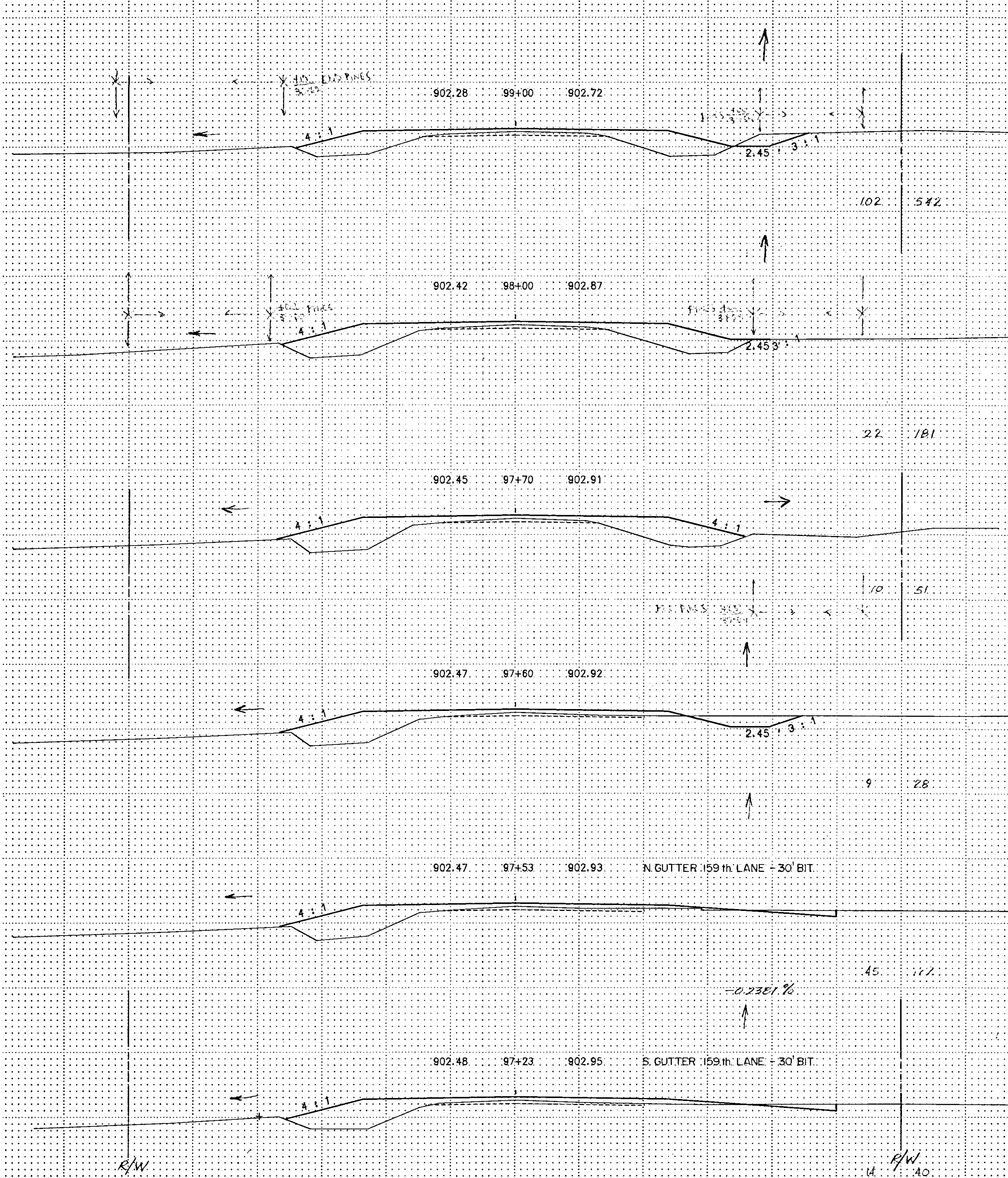
STA. 90+87 TO STA. 97+13

COPY EQUIPMENT FORM BY 80021



EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUB-TOTALS CU.YDS. CU.YDS. SUB-TOTALS



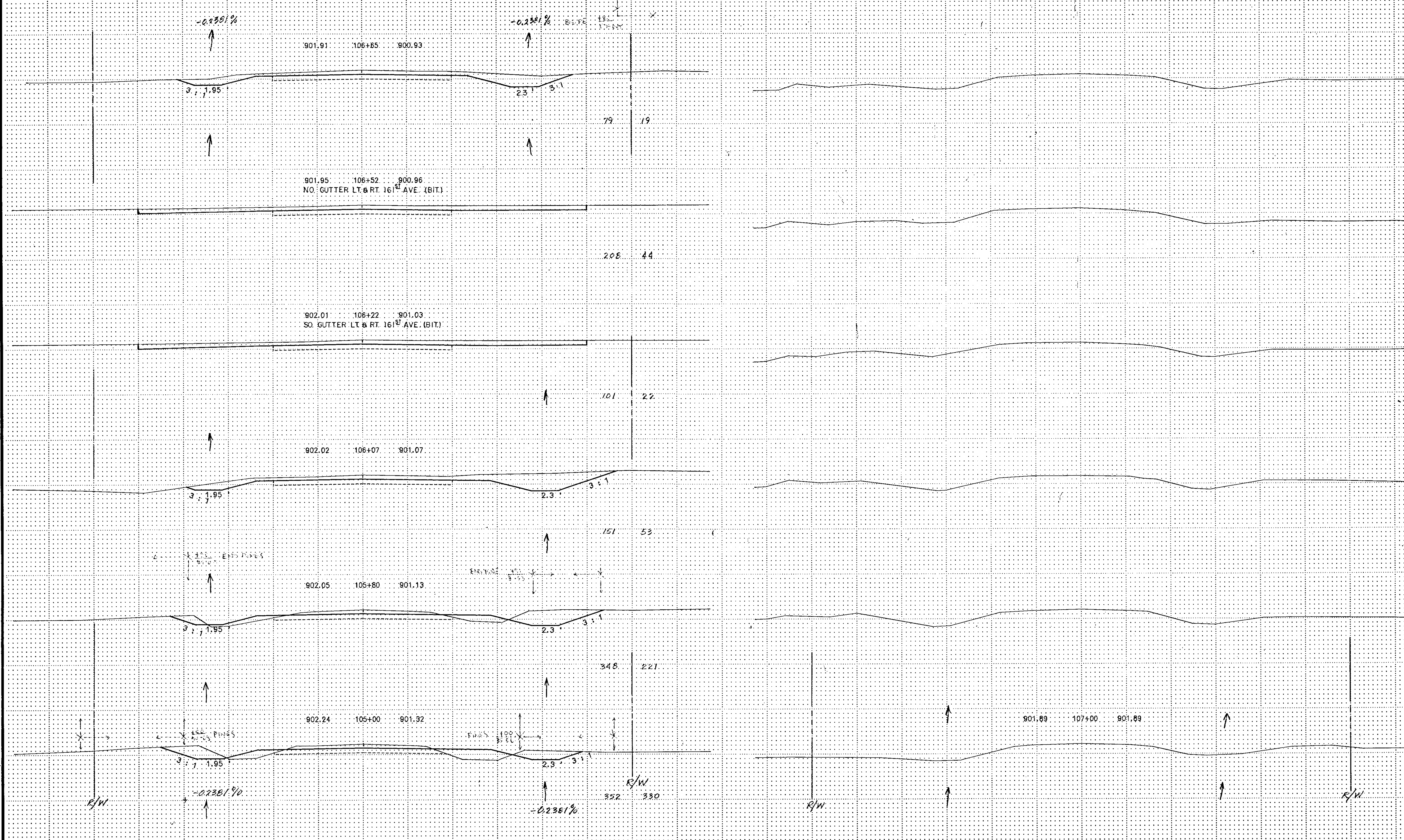
SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 97+23 TO STA. 104+00

COPY EXCAVATION FORM 11 1987



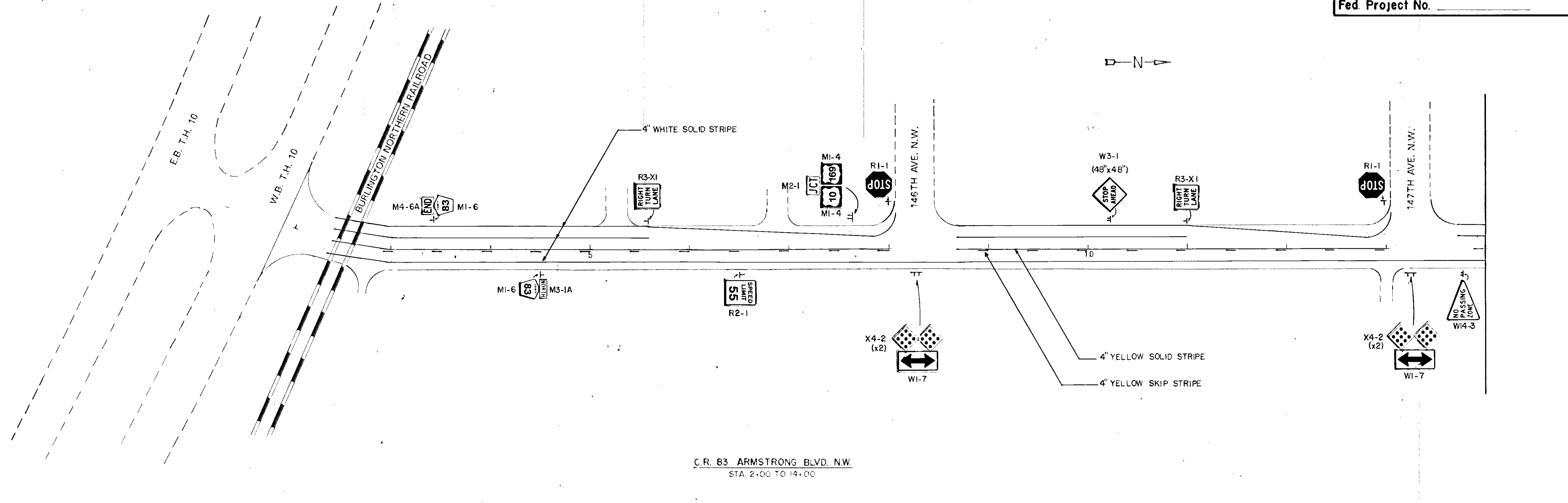
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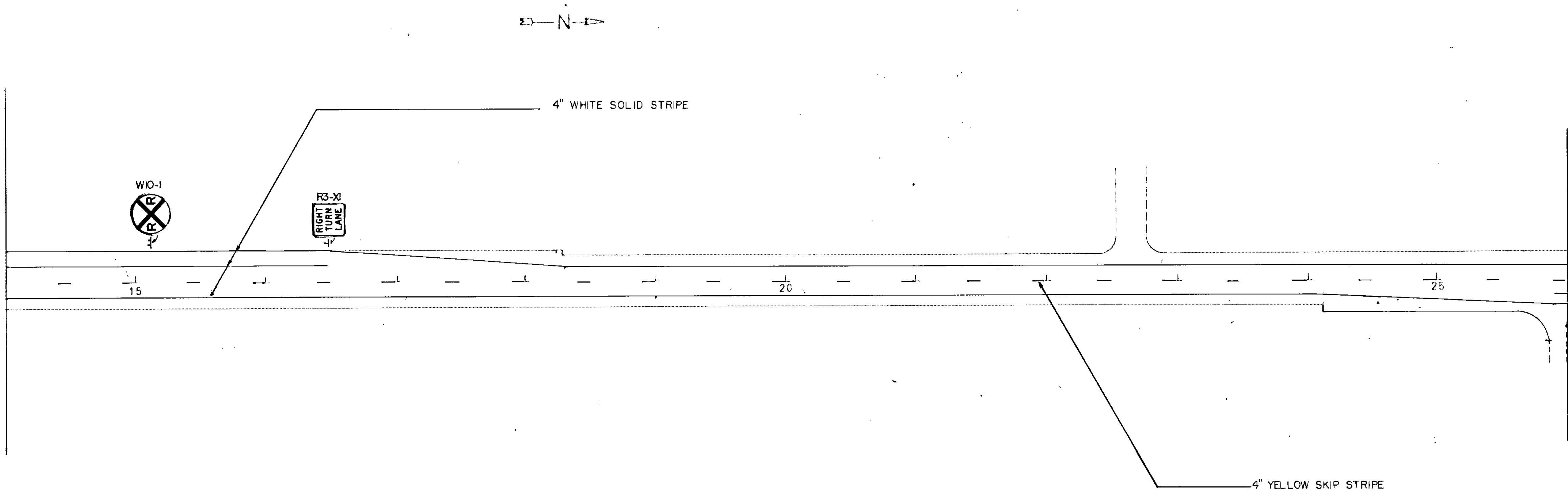
SUBCUT & TOPSOIL QUANTITIES ARE INCLUDED WITH REGULAR EXCAVATION & EMBANKMENT QUANTITIES SHOWN.

STA. 105+00 TO STA. 107+00





C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 2+00 TO 14+00

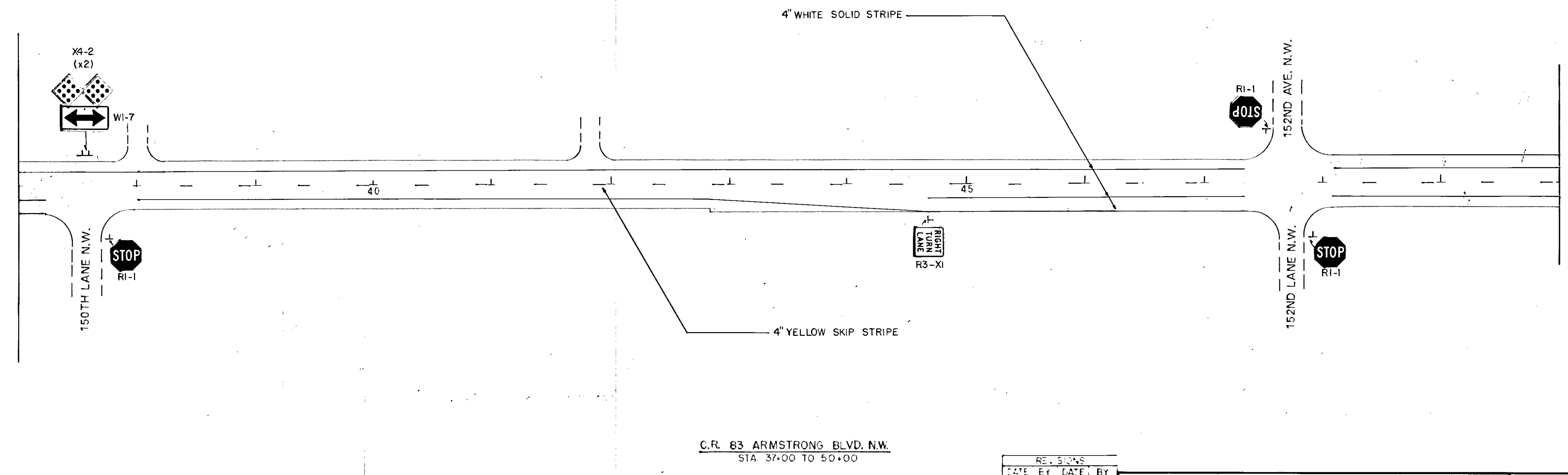
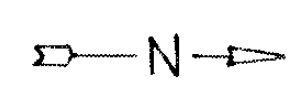
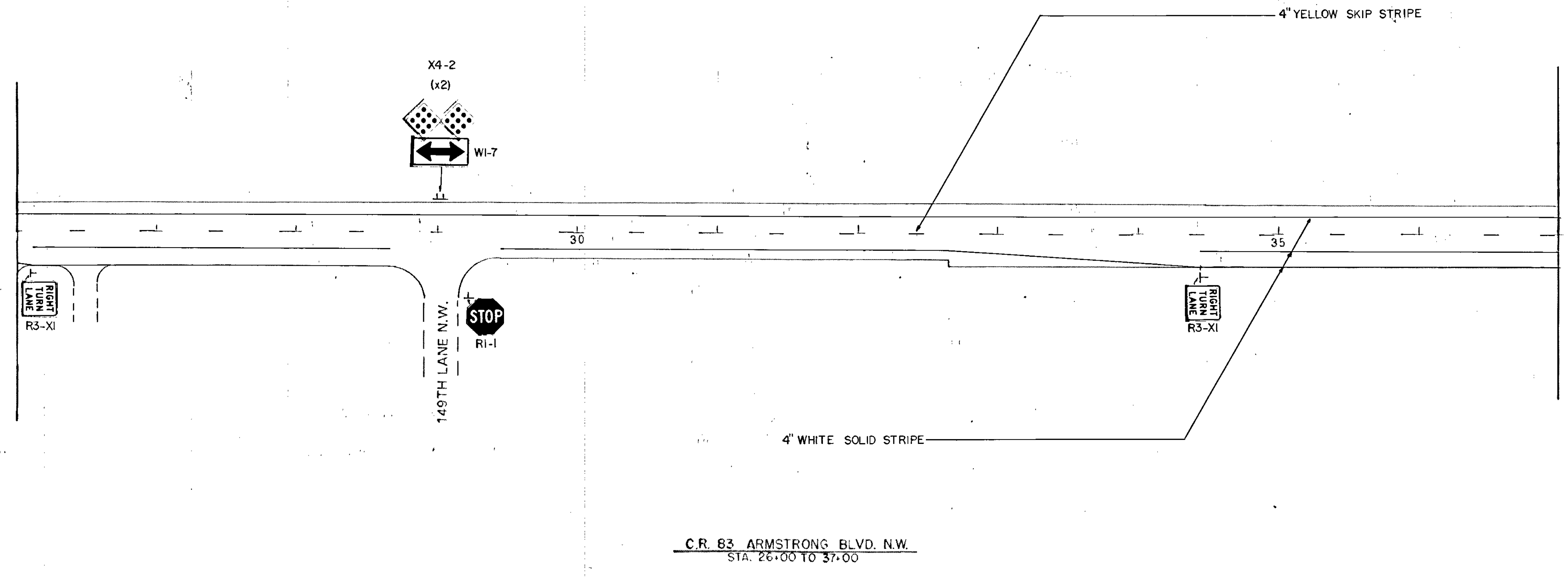
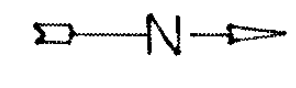


C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 14+00 TO 26+00

REVISIONS			
DATE	BY	DATE	BY

S.A.P. \_\_\_\_\_ S.P. \_\_\_\_\_ C.P. 87-04-83

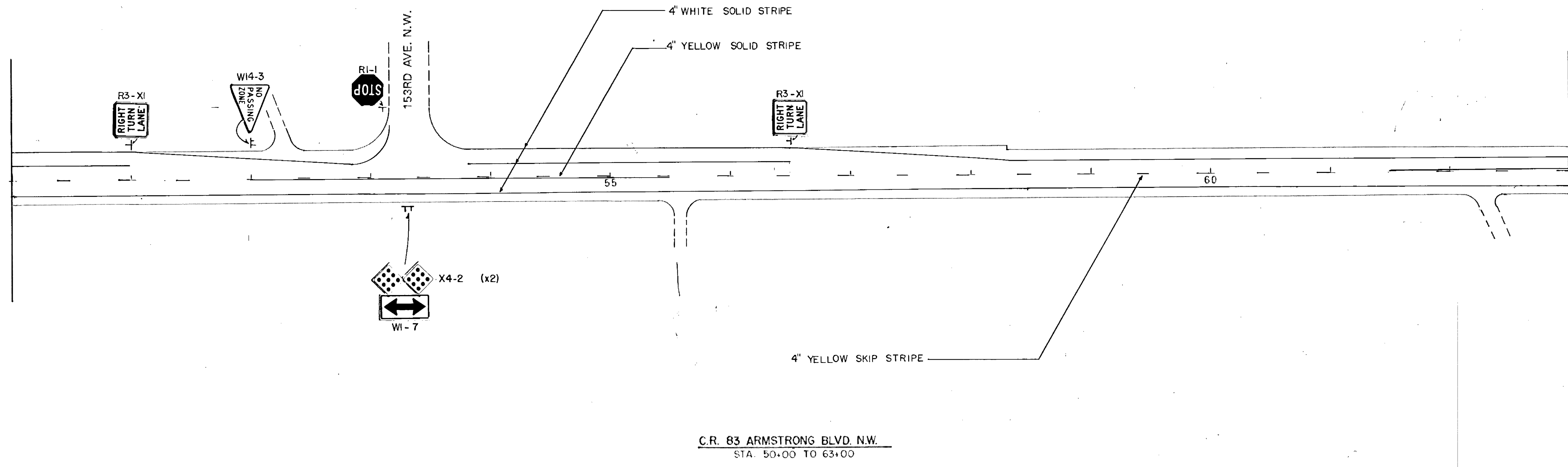
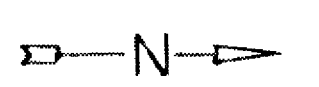




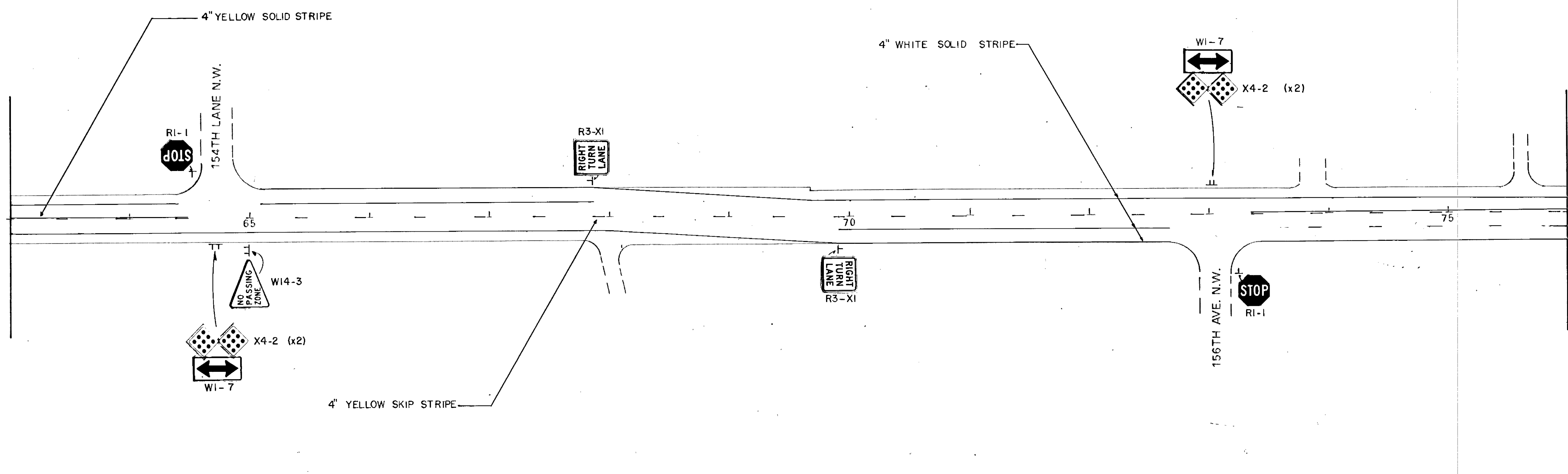
REVISIONS			
DATE	BY	DATE	BY

S.A.P. \_\_\_\_\_ S.P. \_\_\_\_\_ C.P. 87-04-83





C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 50+00 TO 63+00

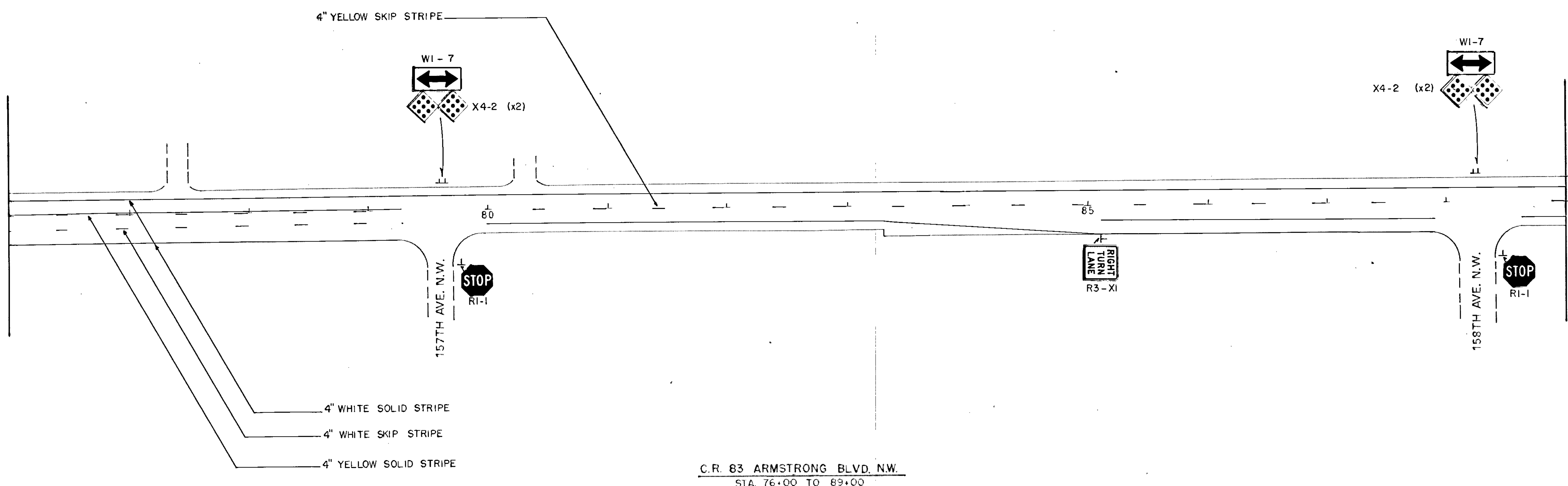


C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 63+00 TO 76+00

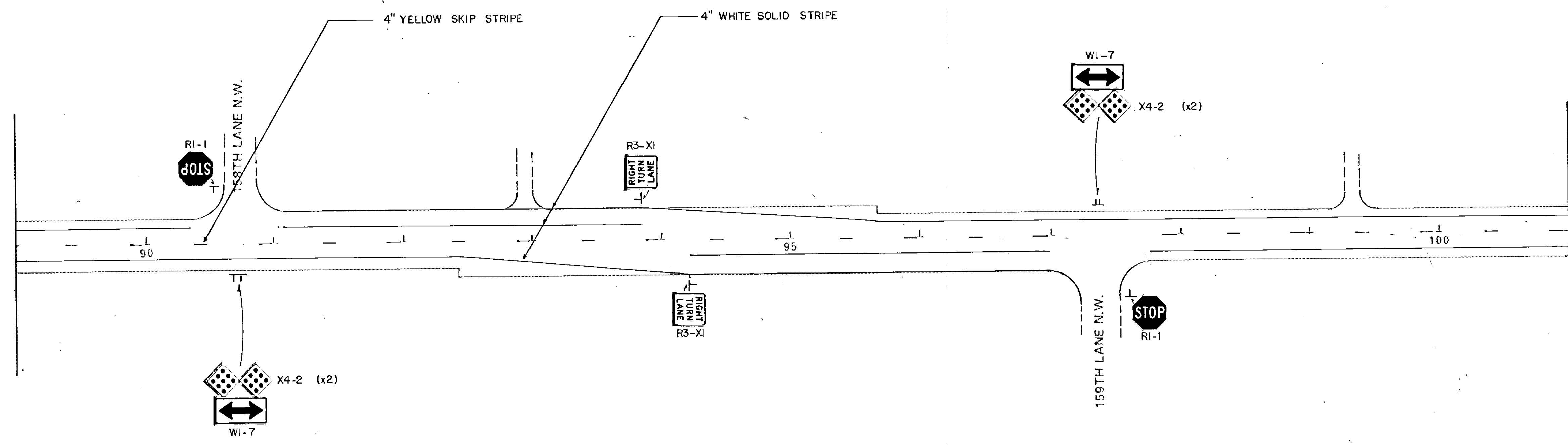
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C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 76+00 TO 89+00



C.R. 83 ARMSTRONG BLVD. N.W.  
STA. 89+00 TO 101+00

REVISIONS			
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