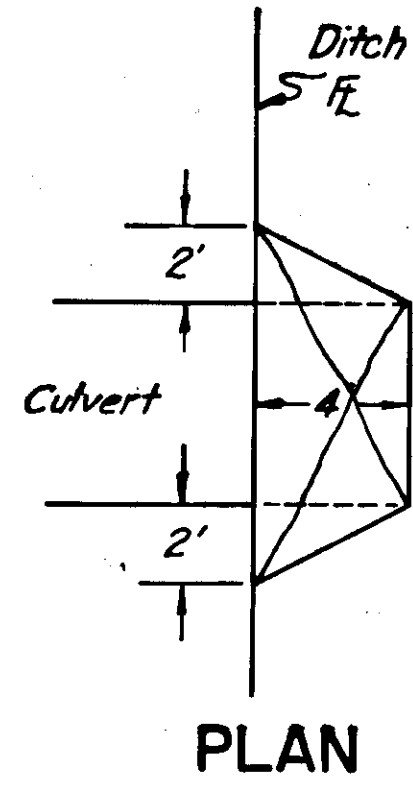
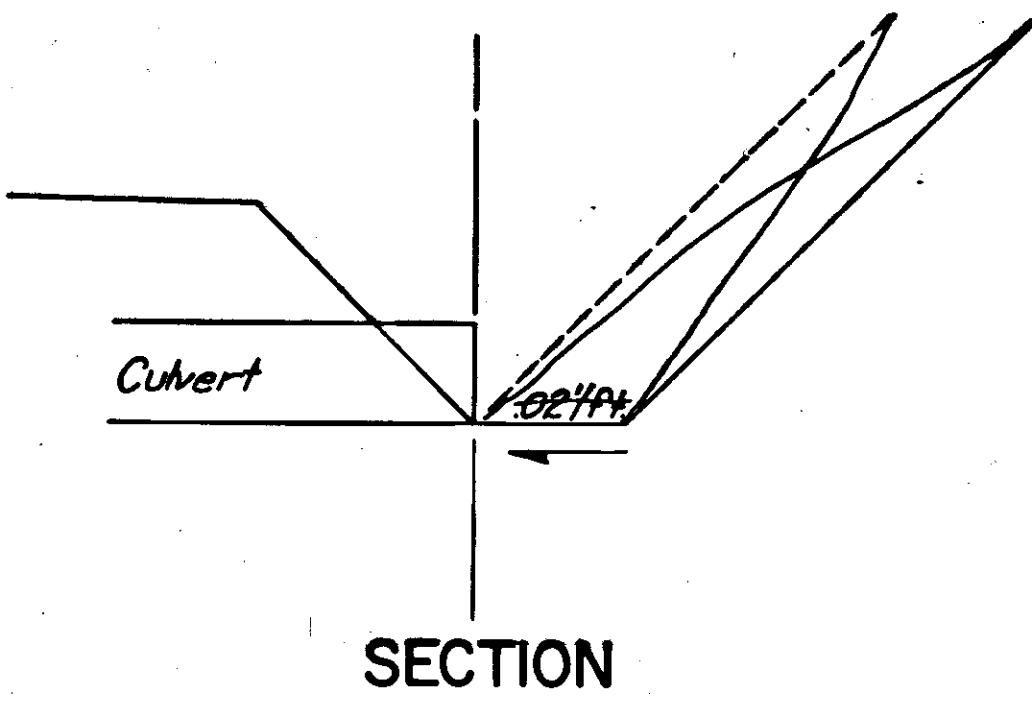




CULVERT INLET DETAIL



PLAN



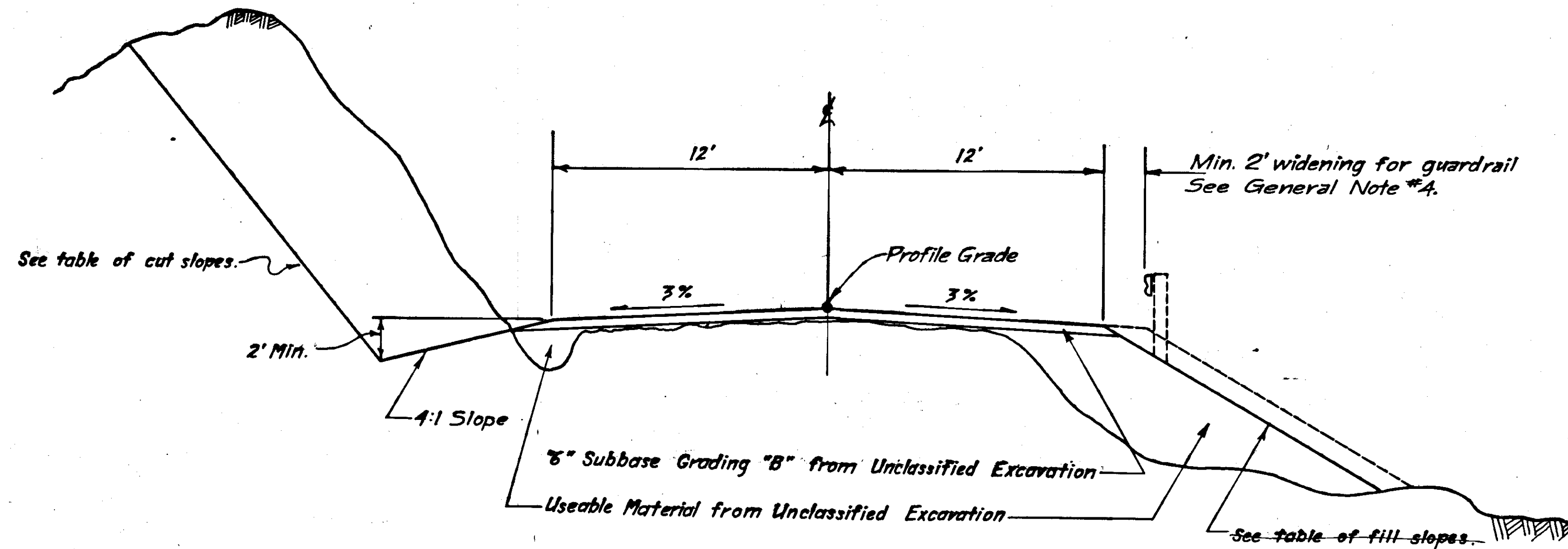
SECTION

Material	Slope
Rock	0.25:1
Other	1:1

Height of Fill	Slope
0' to 5'	3:1
5' to 10'	2.5:1
10' to 15'	2:1
15' & over	1.5:1

Note: Cut & Fill tables are a guide only, slopes may be varied to meet field conditions.

TYPICAL SECTION OF IMPROVEMENT



Sta. "L" 310+17 to Sta. "L" 490+21.3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	2	14

GENERAL NOTES

- Grade and alignment shown on the plans are subject to minor revisions.
- The clearing and grubbing limits shall be a neat line five feet (5) beyond the slope limits, or to the R.O.W. limits whichever is less.
- Super elevation shall be revolved about the inside shoulder, or as staked by the engineer. See Standard Drawing I-80.00, Case II.
- Where practicable the guardrail shall be installed along the existing shoulder or the new shoulder whichever is further to the right as staked by the Engineer.
- The contractor shall be allowed to use steel or wood guardrail posts. See Standard Drawing G-04.13 and G-04.31.
- Existing utility poles that fall within the roadway prism shall be moved by others.
- Approach radii shall be as staked by the engineer.
- The design height of fill does not exceed the cover requirements for minimum gages of pipe conduit.
- 0+445+29 to E.O.P. Processing for subgrade modification, Item 302(3), will include shaping the roadway to the typical section as staked by the engineer.
- 0+445+29 to E.O.P. The heavy centerline shown on the plans is the control line. The existing road is to be improved. Pay Item 302(3) will be measured along the finished roadway centerline.



# CULVERT SUMMARY

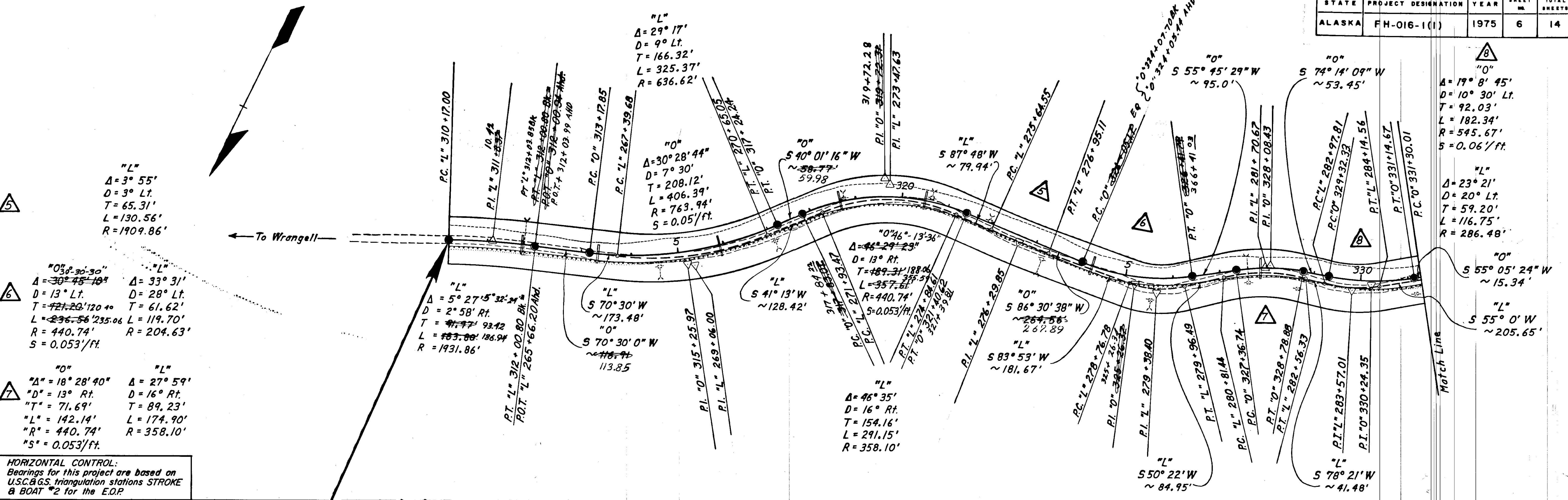
Station	INSTALL						Remarks
	6" Pipe Conduit	18" Pipe Conduit	24" Pipe Conduit	30" Pipe Conduit	36" Pipe Conduit		
"L" 311+74			40				
"O" 313+71			<del>46</del>				
"O" 315+82			<del>46</del>				
"O" 318+72			46				
"O" 320+50			<del>42</del>				
"O" 324+26			<del>42</del>				
"O" 327+90			46				
"O" 332+07			<del>42</del>				
"O" 333+28			<del>46</del>				
"O" 335+17			<del>46</del>				
"O" 336+33			<del>42</del>				Deleted
"O" 337+52			<del>48</del>				
"O" 340+70			<del>40</del>				Deleted
"O" 342+82							
"O" 344+68							
"O" 345+52			<del>44</del>				Construct Ditch Block
"O" 348+89			<del>40</del>				Remove 5' X 5' Wood Culvert <sup>E.W.O.#4</sup> Conduit for Water Service
"O" 349+41	38						
"O" 349+04	<del>20</del>	<del>20</del>					Approach Culvert <sup>No Culvert at this Approach.</sup>
"O" 350+95			<del>40</del>				
"O" 352+35			40				
"O" 353+26			40				
"O" 353+99	44						Conduit for Water Service
"O" 354+73				46			Construct Ditch Block
"O" 355+52							
"O" 356+05			<del>40</del>				Deleted
"O" 357+82			40				Needed New installation
"O" 359+58			<del>42</del>				
"O" 360+43			<del>52</del>				
"O" 361+77	<del>35</del>		<del>44</del>				Construct Ditch Block <sup>Unable to Locate remaining 20' in field</sup>
"O" 362+92			<del>44</del>				Construct Ditch Block
"O" 364+25			<del>44</del>				Construct Ditch Block
"O" 365+84			42				Construct Ditch Block
"O" 366+64			<del>44</del>				Construct Ditch Block
"O" 369+66			<del>40</del>				Construct Ditch Block <sup>Unable to Locate</sup>
"O" 369+89			44				
"O" 371+34							
"O" 372+20			<del>48</del>				
"O" 376+05			42				
"O" 378+13			<del>42</del>				
"O" 379+57							
"O" 381+22			<del>52</del>				
"O" 374+25			48				
"O" 381+89			<del>40</del>				
"O" 383+72			<del>42</del>				
"O" 384+54			<del>42</del>				
"O" 385+38			<del>42</del>				
"O" 387+23			<del>46</del>				
"O" 388+69			<del>42</del>				

Station	INSTALL					Remarks
	18" Pipe Conduit	24" Pipe Conduit	36" Pipe Conduit	48" Pipe Conduit		
"O" 391+10	26		40	42		
"O" 392+48	28		42			
"O" 394+17	<del>28</del>	20	<del>42</del>			unable to locate remaining 8' in field.
"O" 396+54	30		40			Needed New installation.
"O" 398+24			<del>40</del>			Deleted
"O" 399+34	38		40			Not on Plans & Located in field
"O" 401+12	40		46			
"O" 403+81	30		<del>40</del>			No New installation
"O" 405+30	27		42			
"O" 406+48	26		40			
"O" 407+76	27		40			
"O" 402+95	36		42			Extg. Not on Plans & Located in field.
"O" 408+58	28		40			& New installation installed
"O" 410+40	28		42			
"O" 411+12	29		40			
"O" 412+19	28		40			
"O" 412+87	26		42			
"O" 414+75	27		40			
"O" 417+62	27		40			
"O" 418+52	27		40			
"O" 419+74	30		<del>40</del>			
"O" 421+37	31		<del>44</del>			
"O" 423+77	44			52		
"O" 425+38	27		40			
"O" 425+98	20	<del>28</del>	<del>36</del>			Approach Culvert
"O" 425+91	28		<del>40</del>			new installation Deleted
"O" 427+41	28		40			
"O" 428+99	25			40		
"O" 430+11	28		40			
"O" 430+62	28		40			
"O" 431+84	28		40			
"O" 433+07	29		38			
"O" 434+75	48			60		
"O" 435+42	35		<del>46</del>			
"O" 436+07	32		<del>42</del>			
"O" 436+82	33		44			
"O" 437+62	37		<del>40</del>			
"O" 438+61			40			100' error in location on plans
"O" 440+13	34		40			
"O" 440+18	20	<del>30</del>				Approach Culvert
"O" 442+04	51		56			Construct Ditch Block
"O" 444+31	41		<del>50</del>			Construct Ditch Block
"O" 446+12	42	42				Construct Ditch Block
"L" 403+40	<del>35</del>		40			Construct Ditch Block <sup>Remaining 16' of extg. important to excavate</sup>
"L" 406+40	34		<del>42</del>			Construct Ditch Block
"L" 413+15	42	42				
"L" 414+30	32		40			
"L" 415+58	<del>35</del>	<del>40</del>				Remaining 13' of extg. impractical to excavate

Station	INSTALL					Remarks
	18" Pipe Conduit	24" Pipe Conduit	36" Pipe Conduit	48" Pipe Conduit		
"L" 418+42	<del>30</del>	<del>20</del>	<del>38</del>	44		Remaining 10' of Extg. impractical to excavate
"L" 420+40	28		<del>40</del>			
"L" 424+25	30		40			
"L" 425+12					8	Extend
"L" 427+85	34		<del>44</del>	40		
"L" 429+85	45		46			
"L" 430+90	40		40			
"L" 433+35	28		40			
"L" 435+40	<del>28</del>		40			Unable to locate extg. in field.
"L" 437+30	28		38			
"L" 440+12	50		<del>46</del>			
"L" 442+40	43		44			
"L" 443+65	34			40		
"L" 446+03	<del>32</del>		40			Unable to locate extg. in field.
"L" 447+98	34		42			
"L" 449+50	30		<del>40</del>			
"L" 452+15	45		46			
"L" 456+80	<del>37</del>		<del>40</del>			Construct Ditch Block <sup>Deleted New Installation, unable to locate remaining</sup>
"L" 458+25	47		48			Construct Ditch Block
"L" 459+30	43		44			Construct Ditch Block
"L" 460+33	<del>44</del>		44			Construct Ditch Block <sup>Unable to locate extg. in field.</sup>
"L" 462+20	42		42			Construct Ditch Block
"L" 463+55	40		<del>44</del>			Construct Ditch Block
"L" 465+15	40			44		Construct Ditch Block
"L" 467+10	<del>40</del>	<del>40</del>				Construct Ditch Block <sup>Deleted - Unable to locate in field</sup>
"L" 469+10	45		<del>44</del>			Construct Ditch Block
"L" 471+93	44		<del>42</del>			Construct Ditch Block
"L" 473+50	46		<del>44</del>			Construct Ditch Block
"L" 477+52	42		42			Construct Ditch Block
"L" 480+18	49		<del>46</del>			Construct Ditch Block
"L" 482+90	40		<del>42</del>			Construct Ditch Block
"L" 488+45	40		<del>42</del>			Construct Ditch Block
6" Additional Culverts						
"O" 423+90			40			
"O" 427+45			40			
"O" 438+68			40			
"O" 444+16			40			
E.W.O.#4						
"O" 348+89						installed 72" x 44" x 48' Arch Pipe.



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	6	14



"L"  
 $\Delta = 3^\circ 55'$   
 $D = 3^\circ \text{ Lt.}$   
 $T = 65.31'$   
 $L = 130.56'$   
 $R = 1909.86'$

"O"  
 $\Delta = 18^\circ 28' 40''$   
 $D = 13^\circ \text{ Rt.}$   
 $T = 71.69'$   
 $L = 142.14'$   
 $R = 440.74'$   
 $S = 0.053/\text{ft.}$

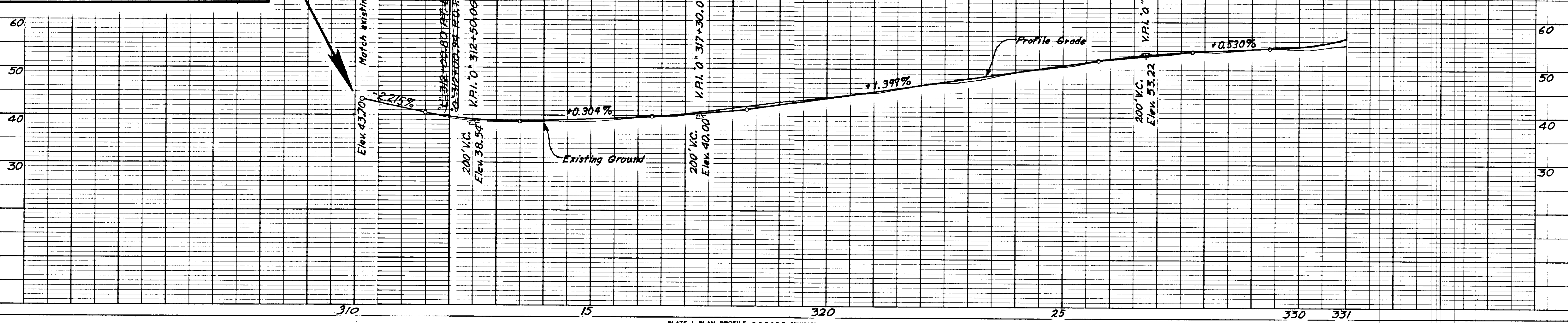
"L"  
 $\Delta = 33^\circ 31'$   
 $D = 28^\circ \text{ Lt.}$   
 $T = 61.62'$   
 $L = 119.70'$   
 $R = 204.63'$

"L"  
 $\Delta = 27^\circ 59'$   
 $D = 16^\circ \text{ Rt.}$   
 $T = 89.23'$   
 $L = 174.90'$   
 $R = 358.10'$

**HORIZONTAL CONTROL:**  
 Bearings for this project are based on U.S.C.&G.S. triangulation stations STROKE & BOAT #2 for the E.O.P.

**VERTICAL CONTROL:**  
 The vertical control was derived from a B.P.R. B.M.-RP, a brass cap stamped "B.M.R.P.-P.O.C. 307+50", and set at Sta. "L" 307+50. Elev. 57.50

**BEGINNING OF PROJECT**  
 FH-016-1(1)  
 Sta. "L" 310+17.00

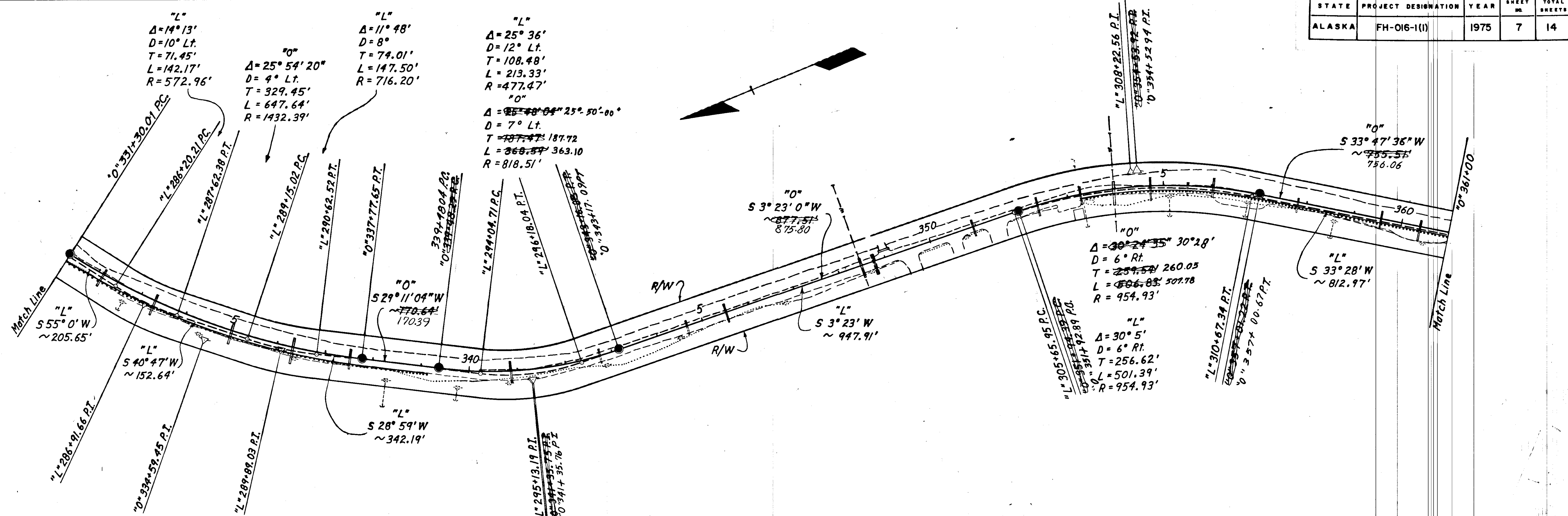


**Earthwork Equation:**  
 $\text{Embankment} = \text{Excavation} - \text{Waste} \times \text{Grading Factor}$

T.B.M. #1 Paint on point of rock cut  
 "L" 279+00±, Elev. 52.80

Embankment = 858 Cu. Yd.  
 Unclassified Excavation = 2813± Cu. Yd. (Includes 800 Cu. Yd. Waste)  
 Subbase Grading "B" = 1,048 Cu. Yd. from Unclassified Excavation.

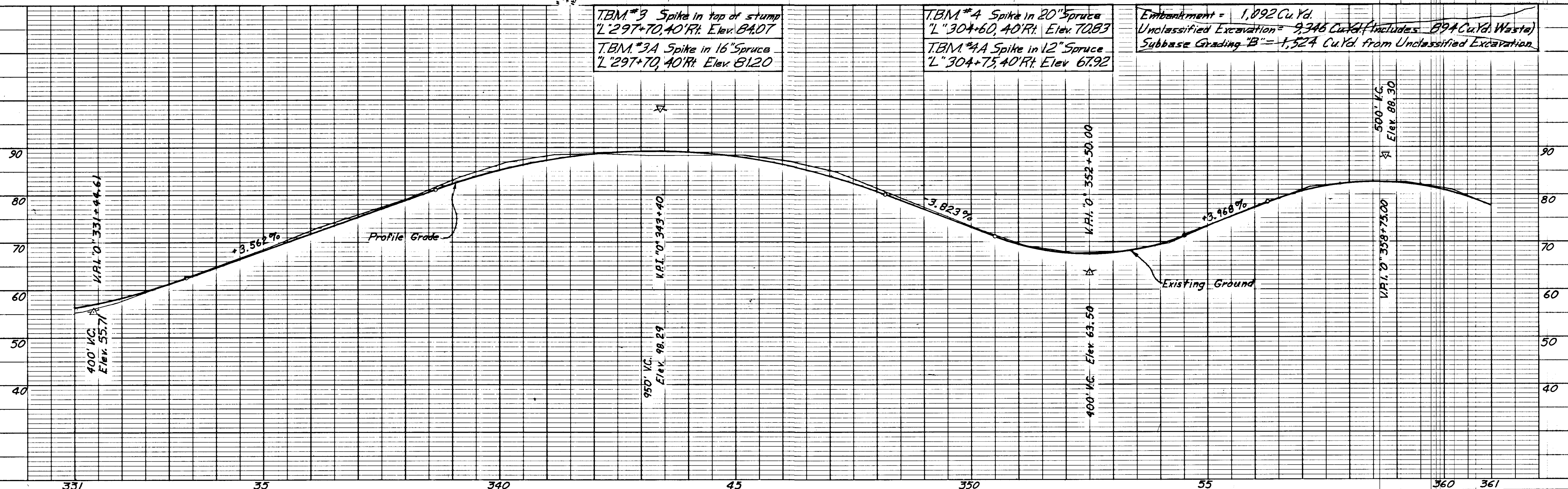
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	7	14



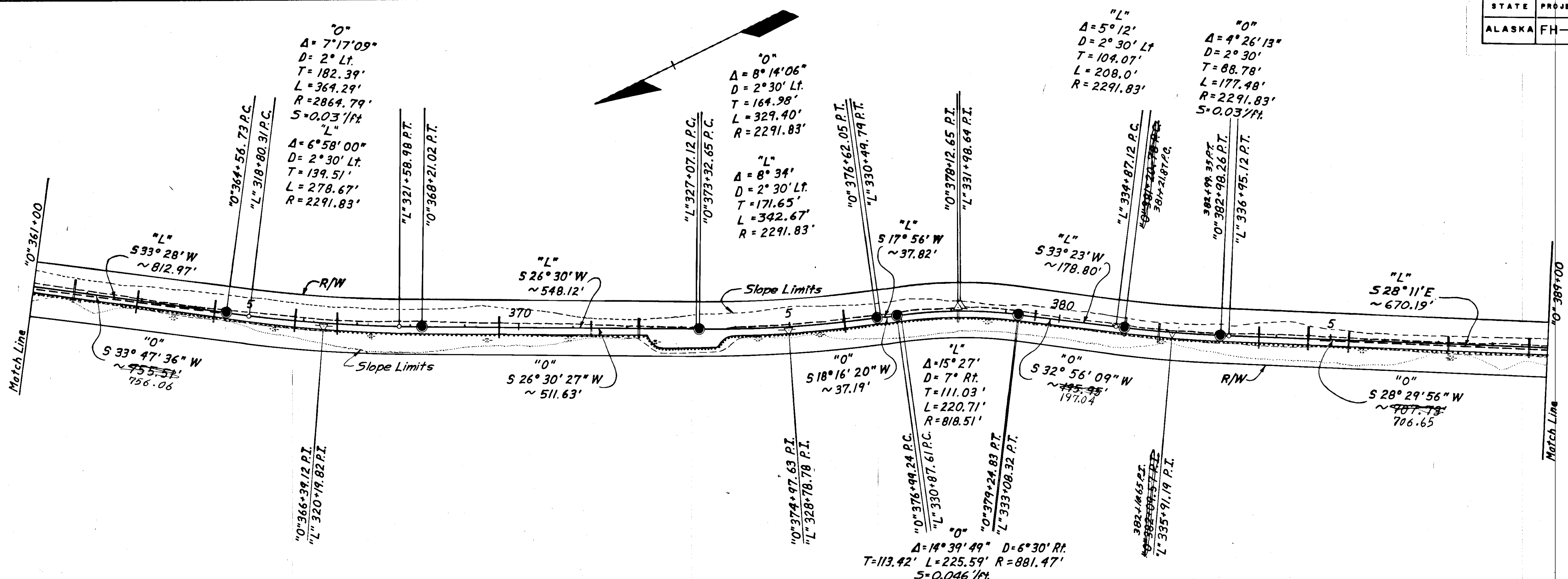
TBM #3 Spike in top of stump  
 L" 297+70.40 Rt. Elev. 84.07  
 TBM #3A Spike in 16" Spruce  
 L" 297+70.40 Rt. Elev. 81.20

TBM #4 Spike in 20" Spruce  
 L" 304+60.40 Rt. Elev. 70.83  
 TBM #4A Spike in 12" Spruce  
 L" 304+73.40 Rt. Elev. 67.92

Embankment = 1,892 Cu. Yd.  
 Unclassified Excavation = 2,346 Cu. Yd. (Includes 894 Cu. Yd. Waste)  
 Subbase Grading "B" = 1,524 Cu. Yd. from Unclassified Excavation



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	8	14



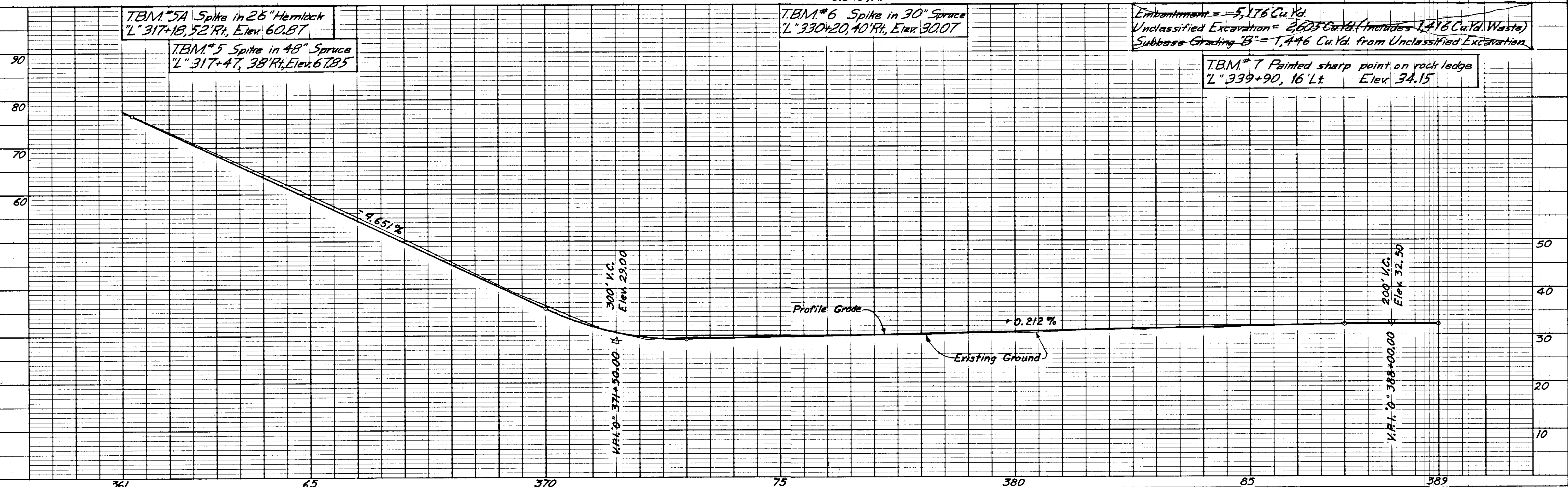
TBM #5A Spike in 26" Hemlock  
 "L" 317+18, 52' Rt, Elev. 60.87

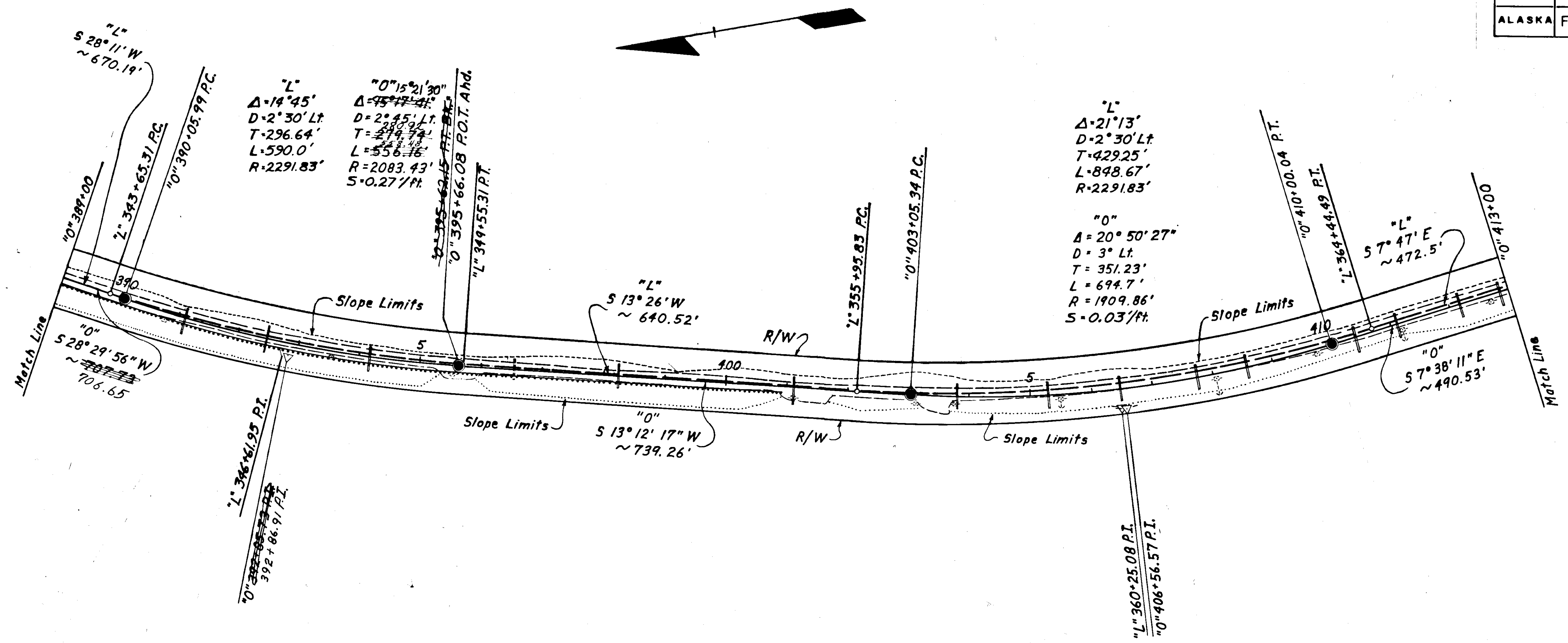
TBM #5 Spike in 48" Spruce  
 "L" 317+47, 38' Rt, Elev. 67.85

TBM #6 Spike in 30" Spruce  
 "L" 330+20, 40' Rt, Elev. 30.07

Embankment = 5,176 Cu. Yd.  
 Unclassified Excavation = 2,603 Cu. Yd. (Includes 1,416 Cu. Yd. Waste)  
 Subbase Grading "B" = 1,446 Cu. Yd. from Unclassified Excavation

TBM #7 Painted sharp point on rock ledge  
 "L" 339+90, 16' Lt, Elev. 34.15



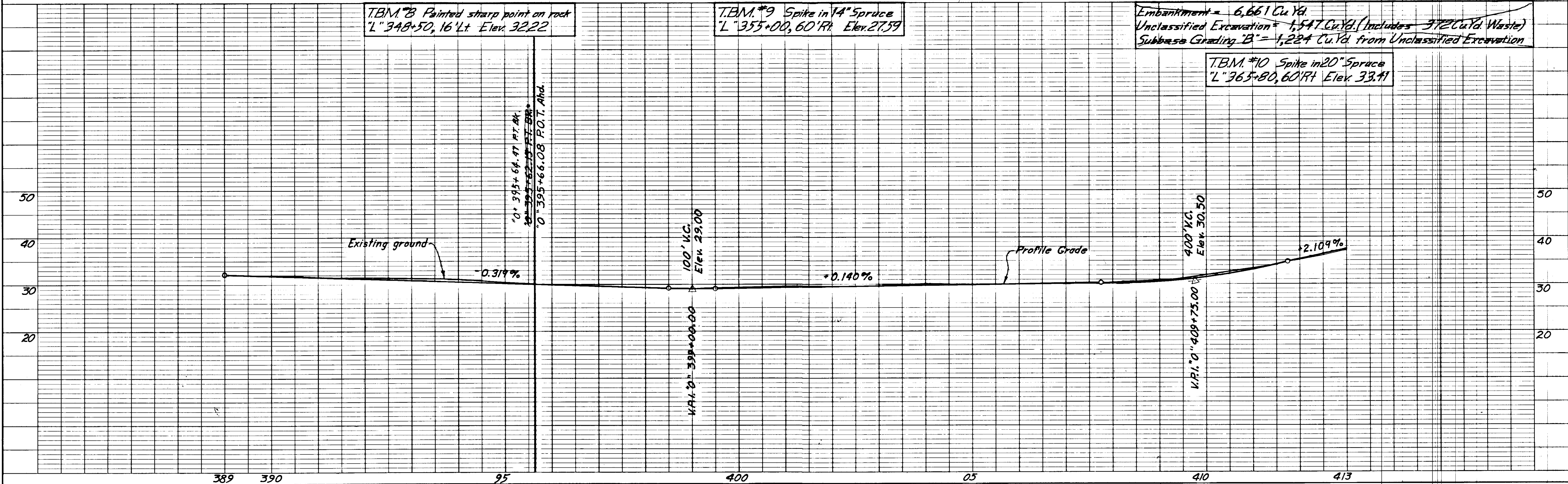


T.B.M. #8 Painted sharp point on rock  
 "L" 348+50, 16' Lt Elev. 32.22

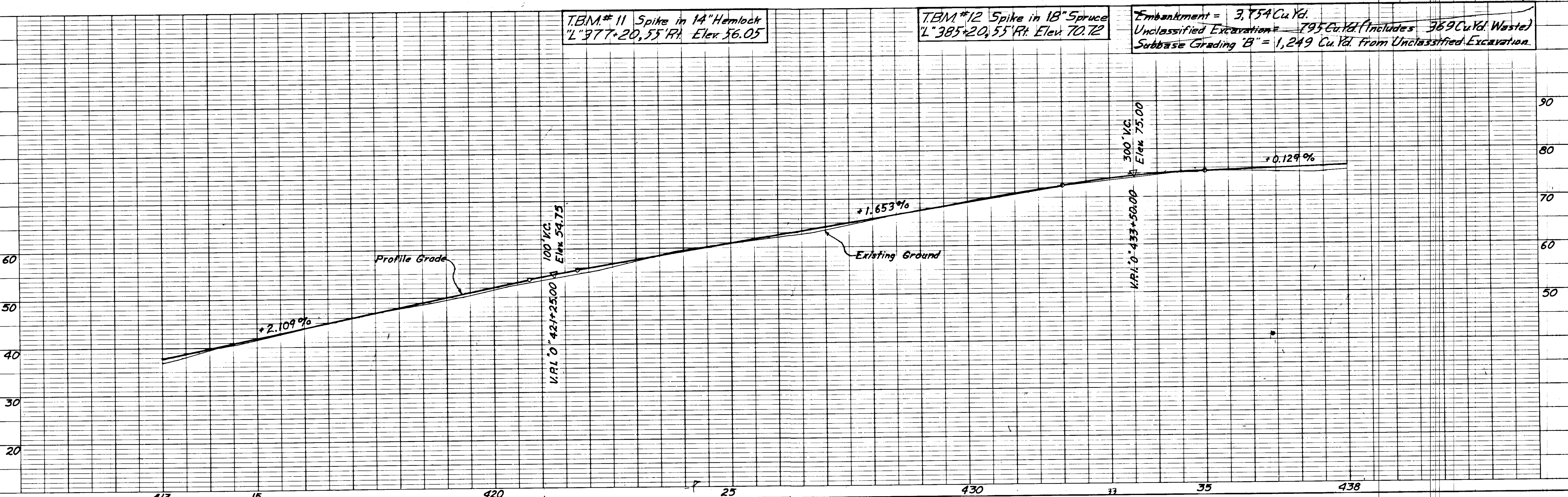
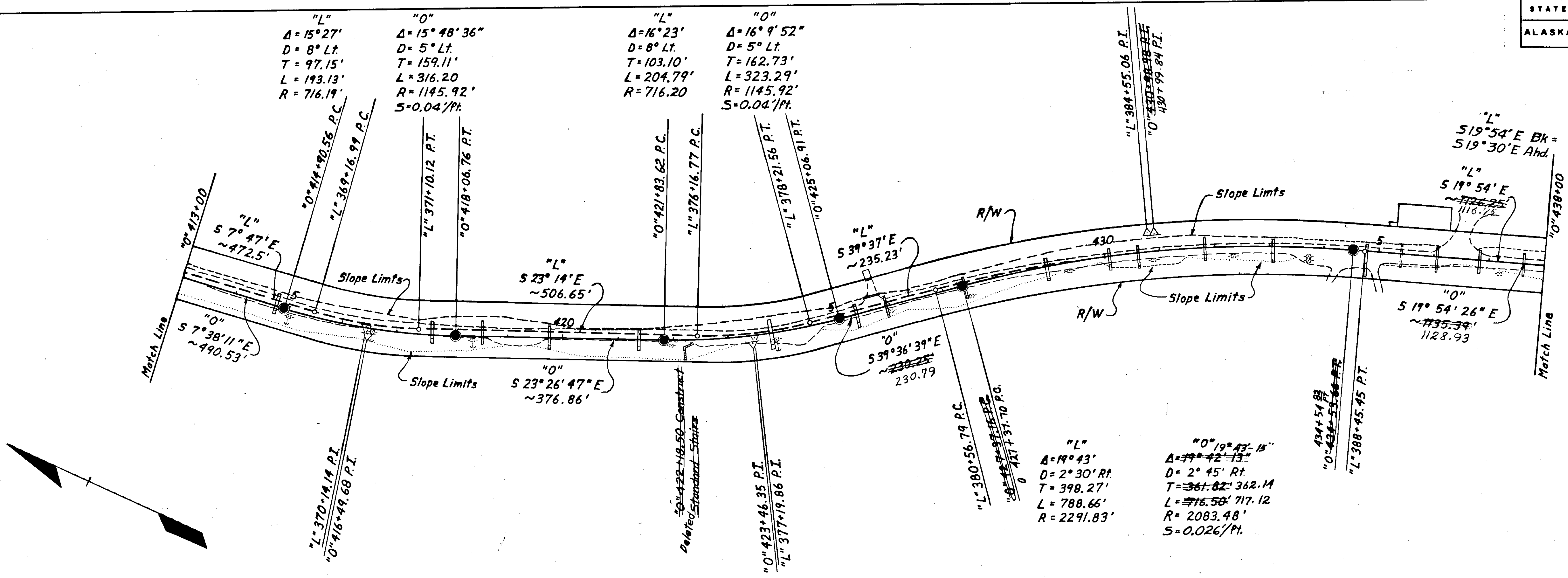
T.B.M. #9 Spike in 14" Spruce  
 "L" 355+00, 60' Rt Elev. 27.59

Embankment = 6,661 Cu. Yd.  
 Unclassified Excavation = 1,547 Cu. Yd. (Includes 372 Cu. Yd. Waste)  
 Subbase Grading "B" = 1,224 Cu. Yd. from Unclassified Excavation

T.B.M. #10 Spike in 20" Spruce  
 "L" 365+80, 60' Rt Elev. 33.41



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	10	14



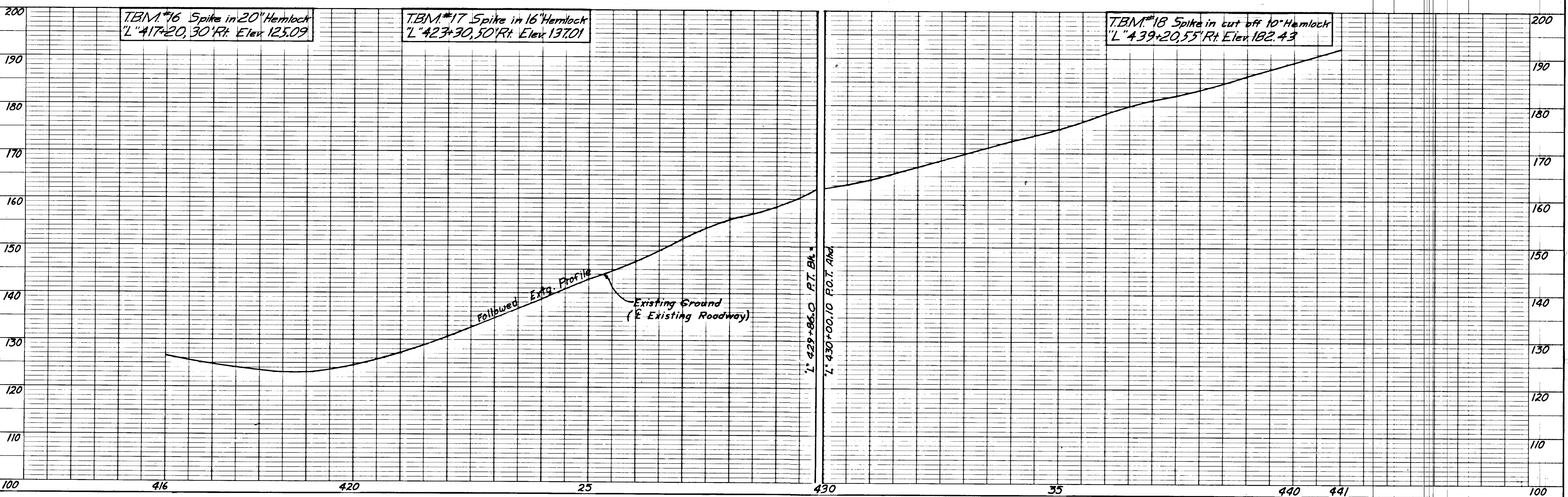
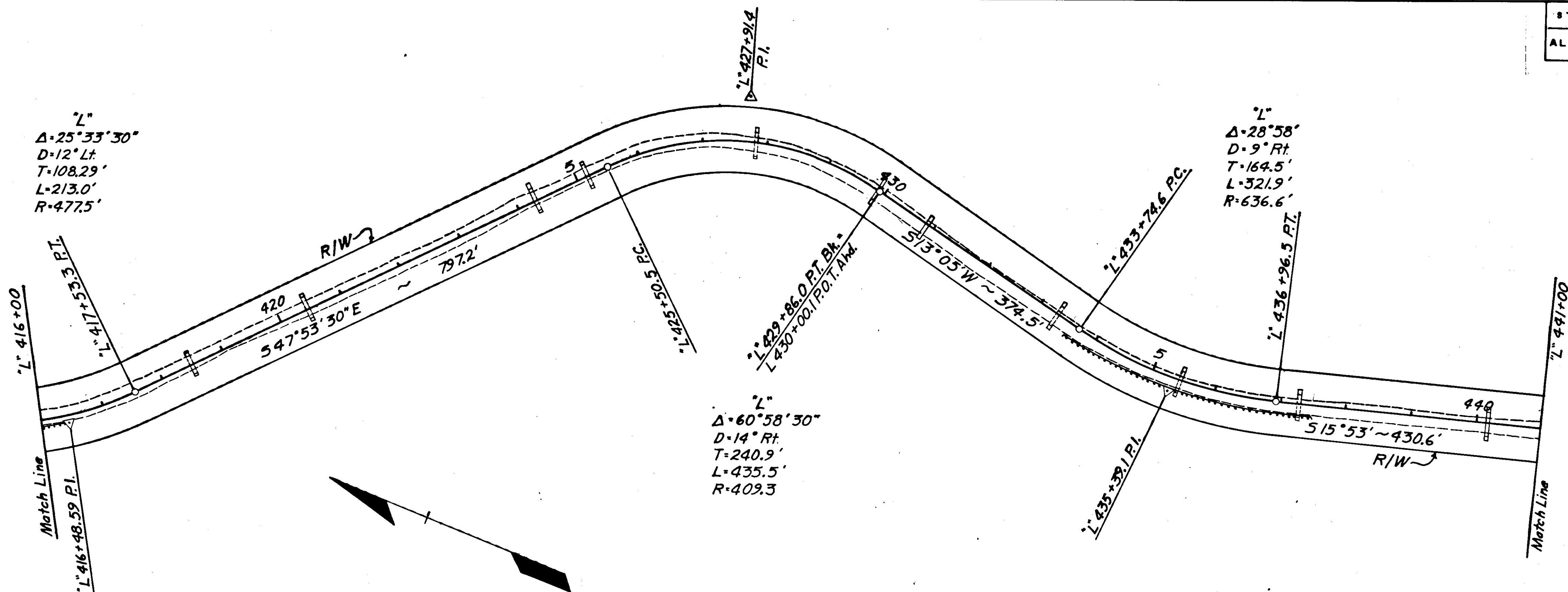
T.B.M. #11 Spike in 14" Hemlock  
L' 377+20.55 Rt Elev. 56.05

T.B.M. #12 Spike in 18" Spruce  
L' 385+20.55 Rt Elev. 70.72

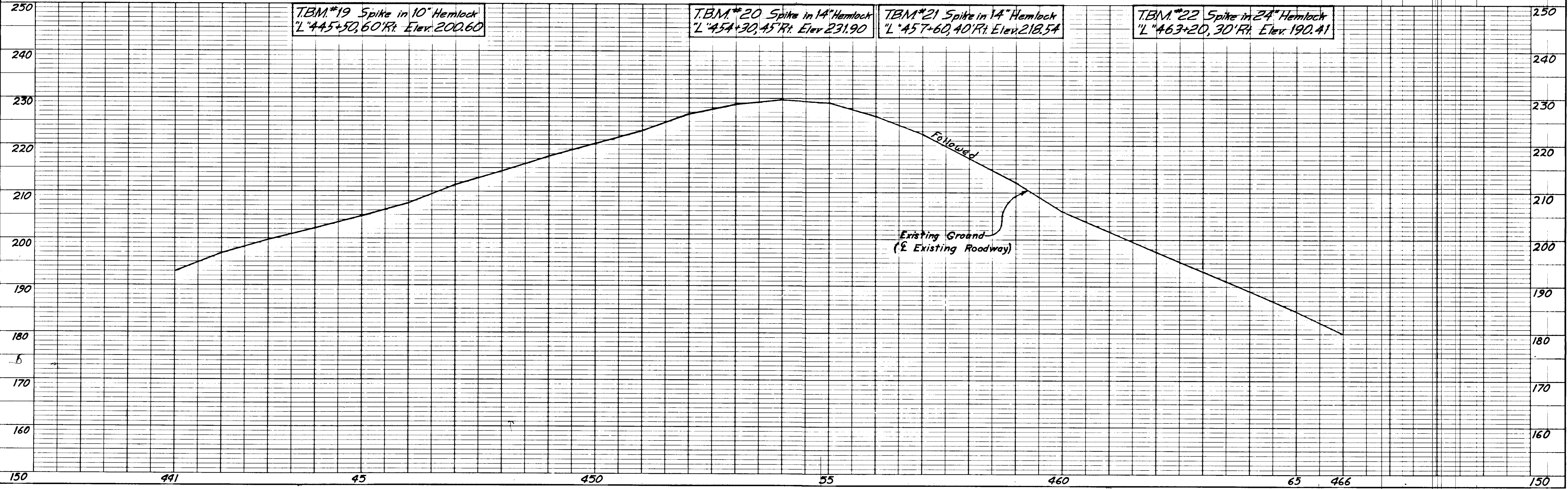
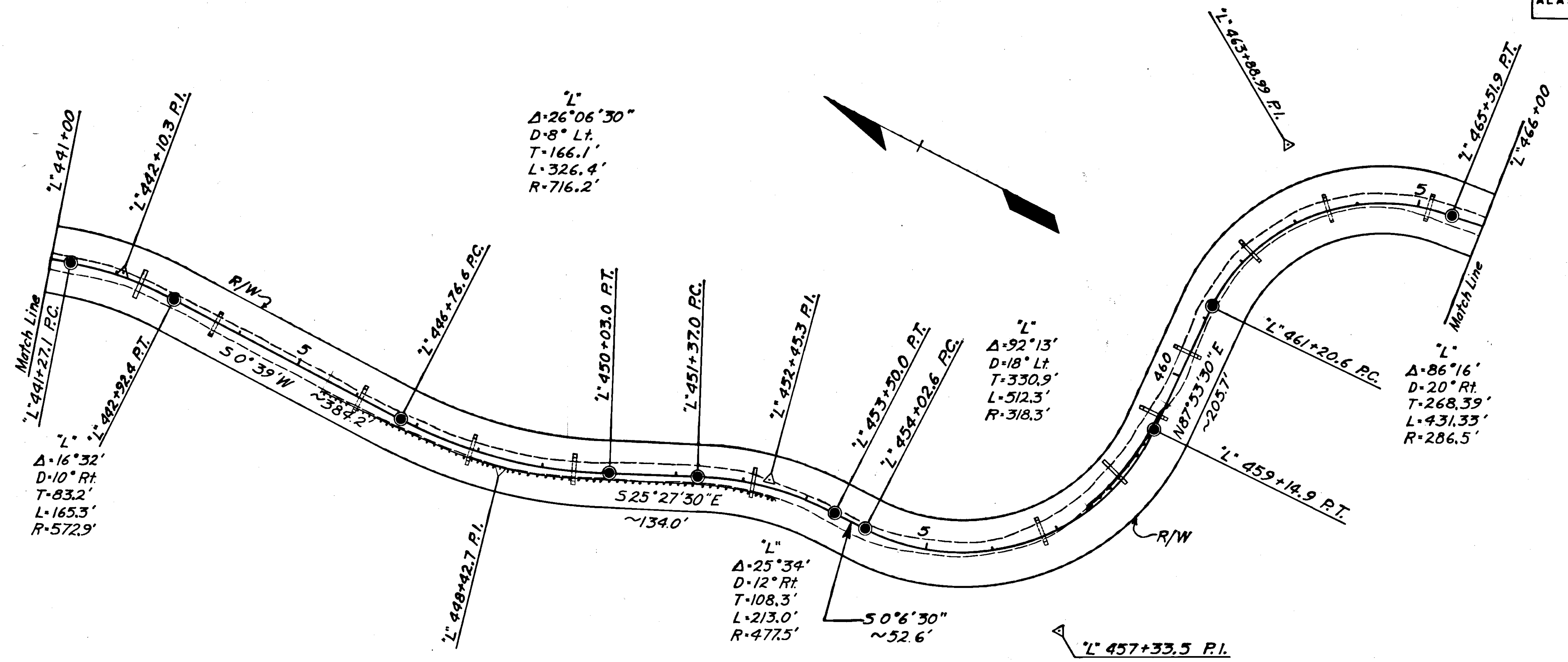
Embankment = 3,754 Cu Yd.  
Unclassified Excavation = 795 Cu Yd. (Includes 369 Cu Yd. Waste)  
Subbase Grading 'B' = 1,249 Cu Yd. From Unclassified Excavation.



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(I)	1975	12	14



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH - 016 - 1 (I)	1975	13	14



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(I)	1975	14	14

