

U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 BUREAU OF PUBLIC ROADS

**PLAN AND PROFILE  
 PROPOSED HIGHWAY PROJECT  
 FOREST HIGHWAY N° FH 31-1(3)  
 DOUGLAS HIGHWAY SHORE PROTECTION  
 TONGASS NATIONAL FOREST  
 ALASKA**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS & MISC. DETAILS
3	CULVERT PIPE SUMMARY
4-5	PLAN & PROFILE SHEETS
6	STANDARD BEAM GUARDRAIL
7	STANDARD CONST. IDENTIFICATION SIGN

Field investigation soils reports of the foundation materials and detailed cross sections for this project are available for inspection in the Federal Highway Projects Office, Region 10, Bureau of Public Roads in Juneau, Alaska.

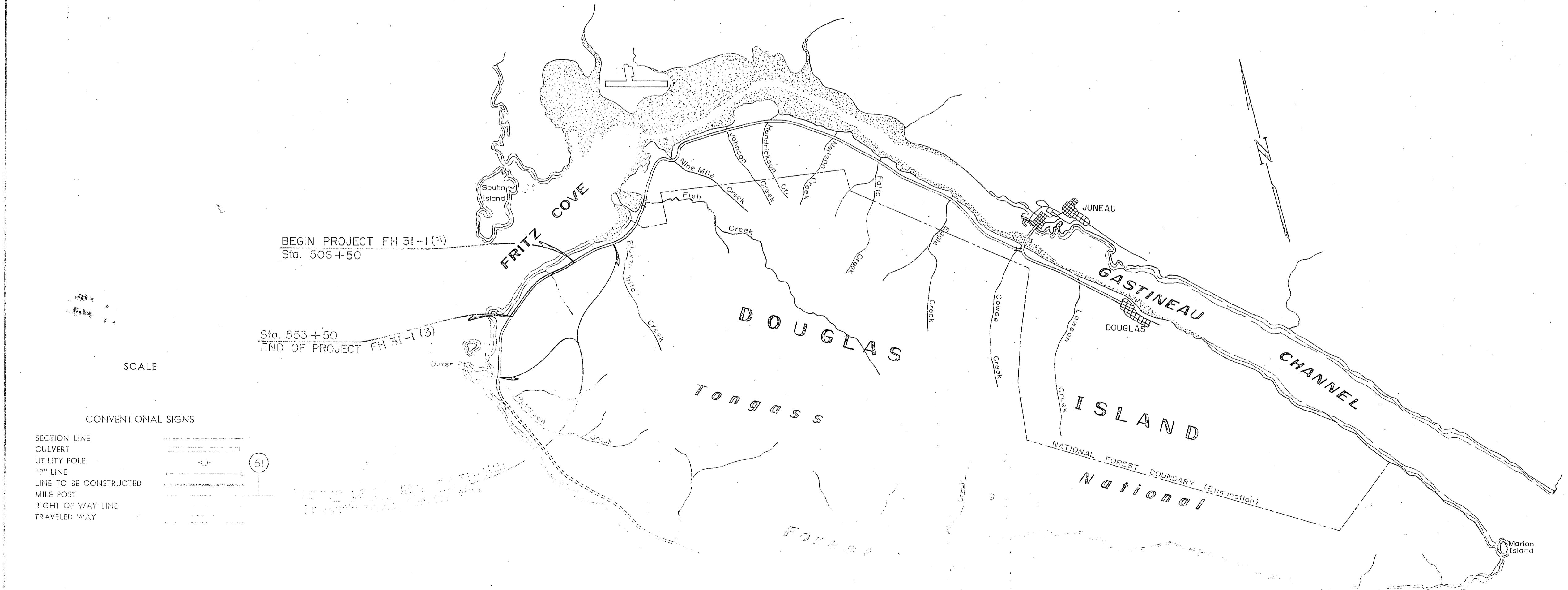
PROJECT SUMMARY

WIDTH OF SUBGRADE	34 FT.
LENGTH OF GRADING & DRAINAGE	4700 FT. = 0.89 MI.
TOTAL LENGTH OF PROJECT	4700 FT. = 0.89 MI.

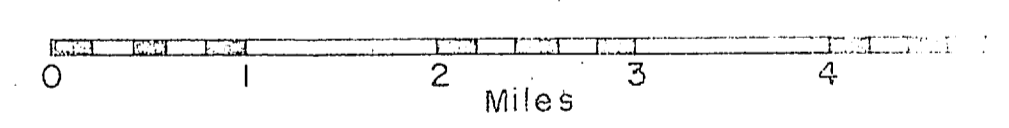
TYPE 2010 IMPROVEMENT

DESIGN DESIGNATION

ADT	(1965)	90
ADT	(1985)	240
DHV		43
D		65
T		5%
V		50 mph



INDEX MAP  
Scale



SCALE

CONVENTIONAL SIGNS

SECTION LINE	
CULVERT	
UTILITY POLE	
"P" LINE	
LINE TO BE CONSTRUCTED	
MILE POST	
RIGHT OF WAY LINE	
TRAVELED WAY	

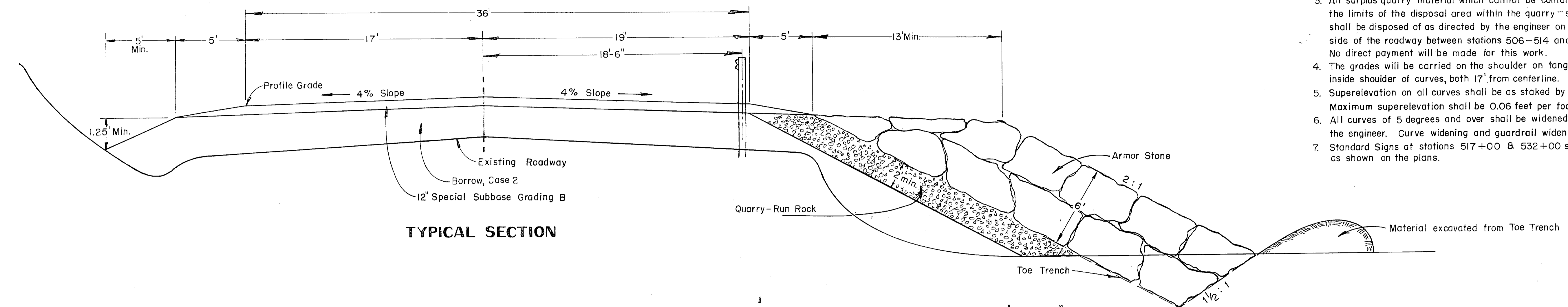
APPROVED

\_\_\_\_\_  
 FEDERAL REGIONAL ADMIN. DISTRICT  
 FEDERAL HIGHWAY ADMINISTRATION

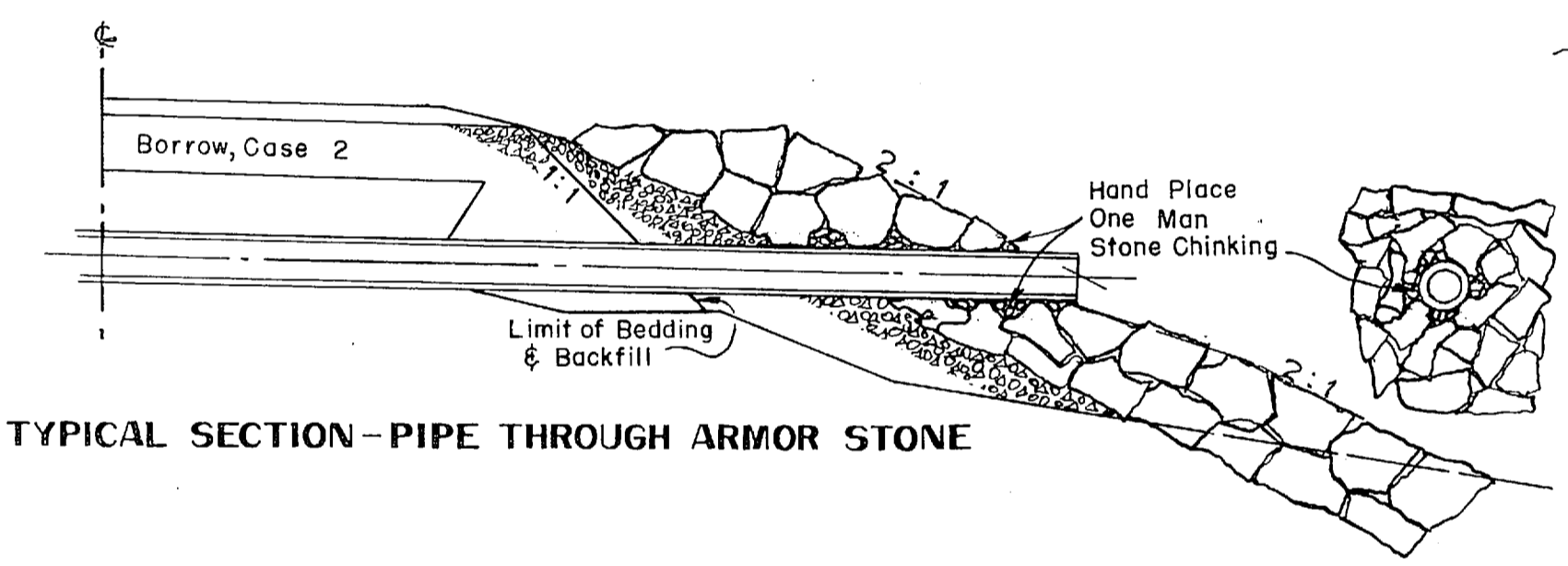
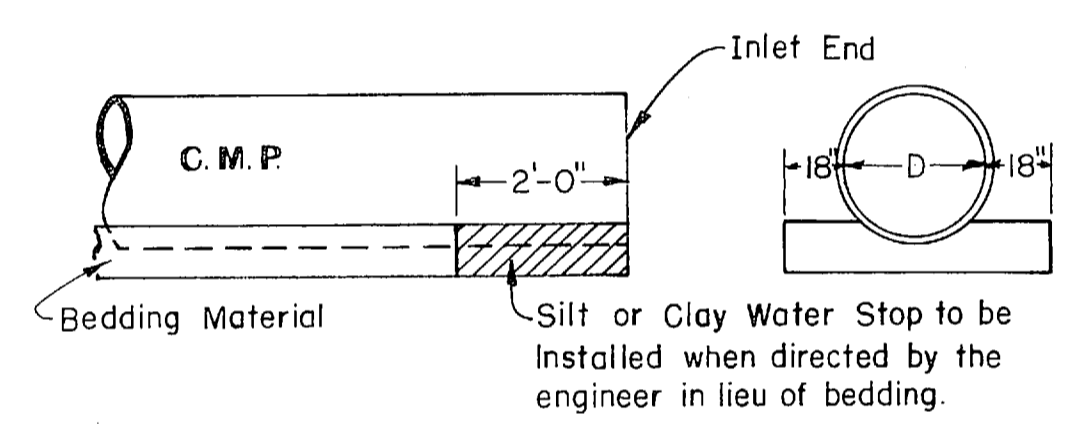
STATE	ROUTE	SECTION	YEAR	SHEET N <sup>o</sup>	TOTAL SHEETS
ALASKA	FH 31-1 (3)	1	1967	2	7

**GENERAL NOTES**

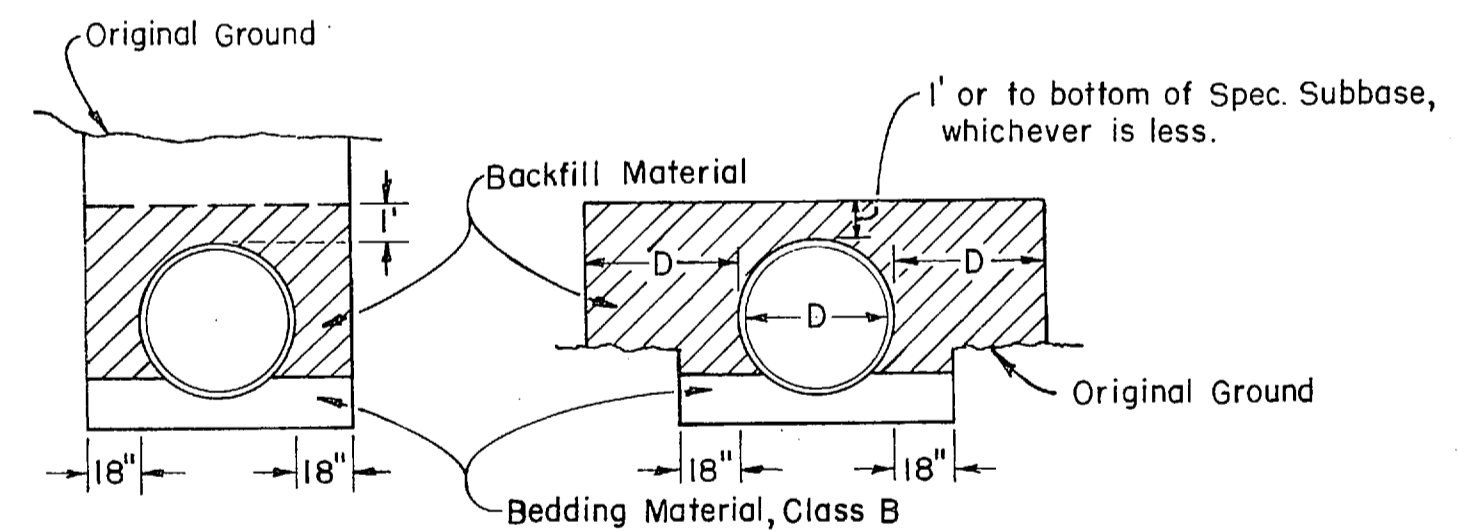
1. The culvert length as shown are approximate only.
2. The grades and alignment shown on these plans are subject to minor revisions.
3. All surplus quarry material which cannot be contained within the limits of the disposal area within the quarry - shown below - shall be disposed of as directed by the engineer on the right side of the roadway between stations 506-514 and 553-557. No direct payment will be made for this work.
4. The grades will be carried on the shoulder on tangent and on the inside shoulder of curves, both 17' from centerline.
5. Superelevation on all curves shall be as staked by the Engineer. Maximum superelevation shall be 0.06 feet per foot
6. All curves of 5 degrees and over shall be widened as staked by the engineer. Curve widening and guardrail widening is accumulative.
7. Standard Signs at stations 517+00 & 532+00 shall be installed as shown on the plans.



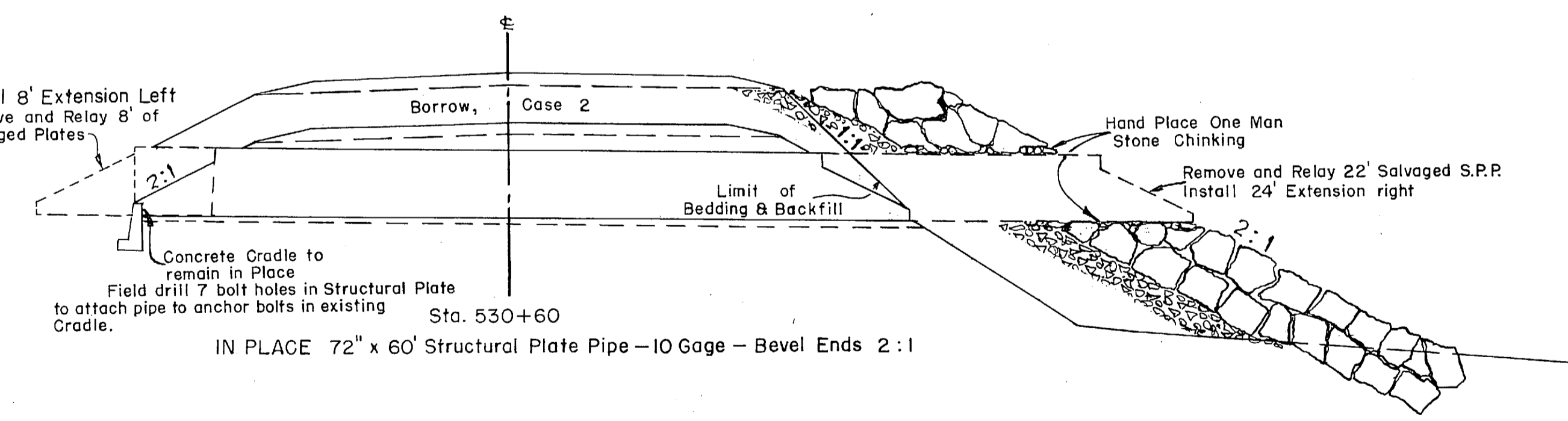
**TYPICAL SECTION**



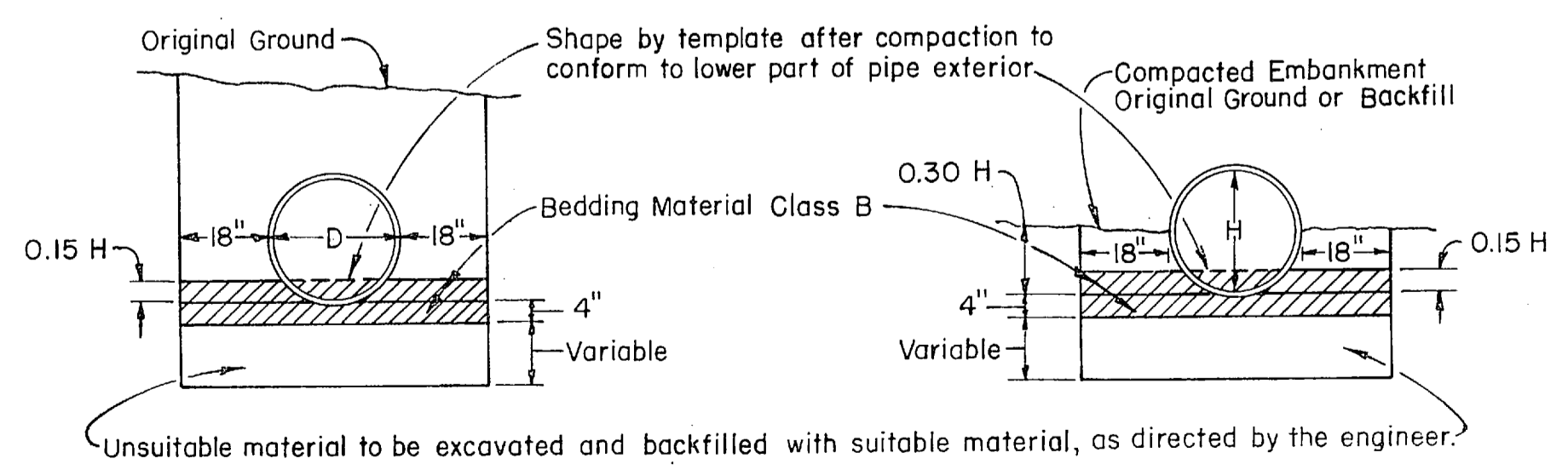
**TYPICAL SECTION - PIPE THROUGH ARMOR STONE**



**TYPICAL SECTION SHOWING BACKFILL DETAILS FOR CULVERTS**



**TYPICAL SECTION - THRU QUARRY SITE  
Lt. Station 531-536**



**TYPICAL SECTIONS  
SHOWING BEDDING DETAILS FOR CULVERTS**

**TABLE OF BEAM-TYPE GUARDRAIL**

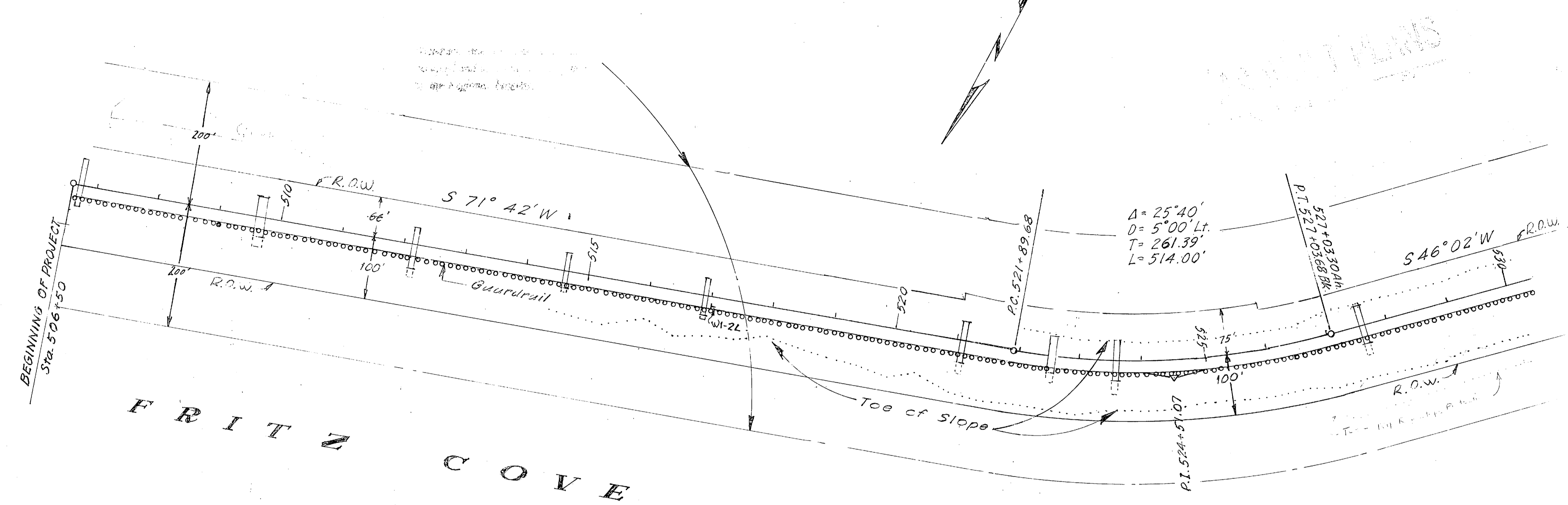
506+60 to 532+00 = 2550 Lin. Ft. (Government Furnished)
532+00 to 553+00 = 2100 Lin. Ft. (Contractor Furnished)
553+00 to 561+00 = 837.5 Lin. Ft. (Government Furnished)

No bedding material or backfill material will be placed right of the 1:1 cut-off lines shown above. Pipe beyond this cut-off line will be backfilled with the same material as the layer the pipe is passing through. No direct payment will be made for this back-filling, other than payment for the material under Item 102 (5A) or Item 511 (2) as the case may be. The furnishing and placing of One Man Stone Chinking shall be incidental to Item 511 (2) and no direct payment will be made therefore.

**ESTIMATE OF QUANTITIES**

ITEM N <sup>o</sup>	QUANTIT.	UNIT	ITEM
10	All Req'd	Cont'y. Sum	Misc. Force Account Work
101 (1)	100	Sq. Ft.	Select Removal of Trees & Snags
102 (5A)	60,000	Ton	Borrow, Case 2
103 (4A)	45	C.Y.	Bedding Material, Gov't. - Furnished
103 (5A)	260	C.Y.	Placing Gov't. - Furnished Backfill Material, Pipe Culverts
104 (2A)	9600	Ton	Special Sub-Base, Grading B, Gov't. - Furnished
453 (1G)	182	Lin. Ft.	24" Corrugated Metal Pipe
453 (1I)	74	Lin. Ft.	36" Corrugated Metal Pipe
455 (1C)	32	Lin. Ft.	72" Structural Plate Pipe
456 (2)	128	Lin. Ft.	Remove, Clean, Relay Salvaged Culvert Pipe
456 (3)	46	Lin. Ft.	Remove, Clean, Relay Salvaged Str. Plate Pipe & Pipe Arch Culvert
511 (2)	78,000	Ton	Random Placed Armor Stone
583 (2)	2,100	Lin. Ft.	Galvanized Beam-type Guardrail
583 (2A)	3387.5	Lin. Ft.	Government-Furnished, Galvanized Beam-type Guardrail
584 (1)	2	Each	Government-Furnished, Standard Signs

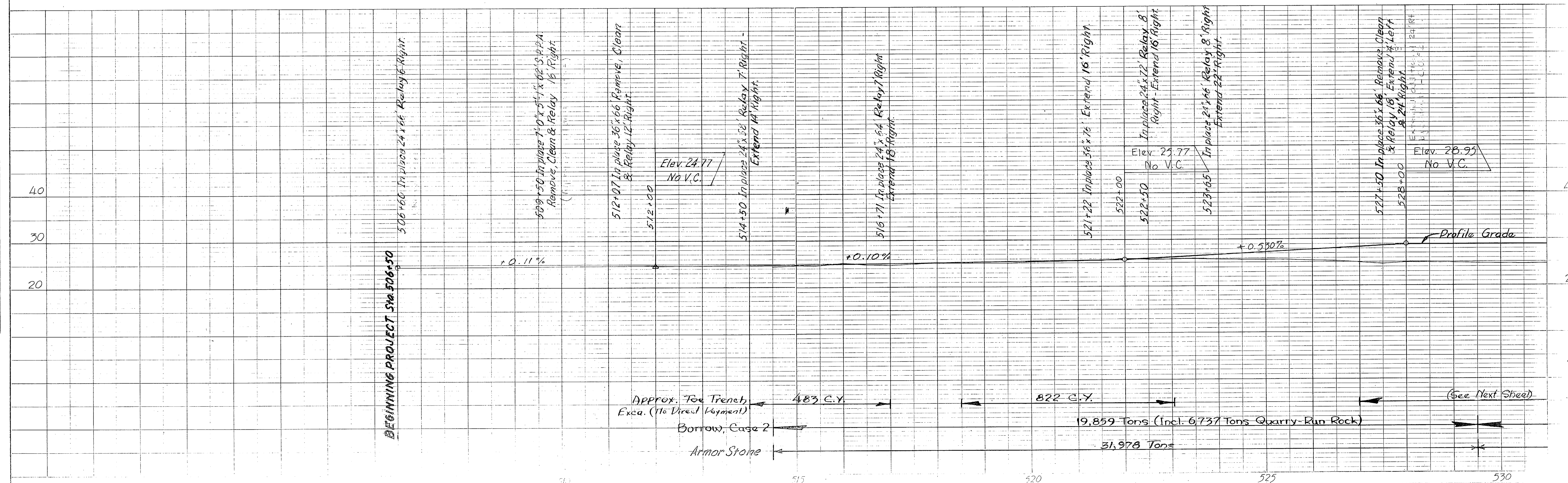
TONGASS NATIONAL FOREST



FRITZ COVE

PLAN  
SURVEYED  
P.L. CHECKED  
NOTE BOOK  
NO. OF WAY CHECKED

PROFILE  
SURVEYED  
P.L. CHECKED  
NOTE BOOK  
NO. OF WAY CHECKED

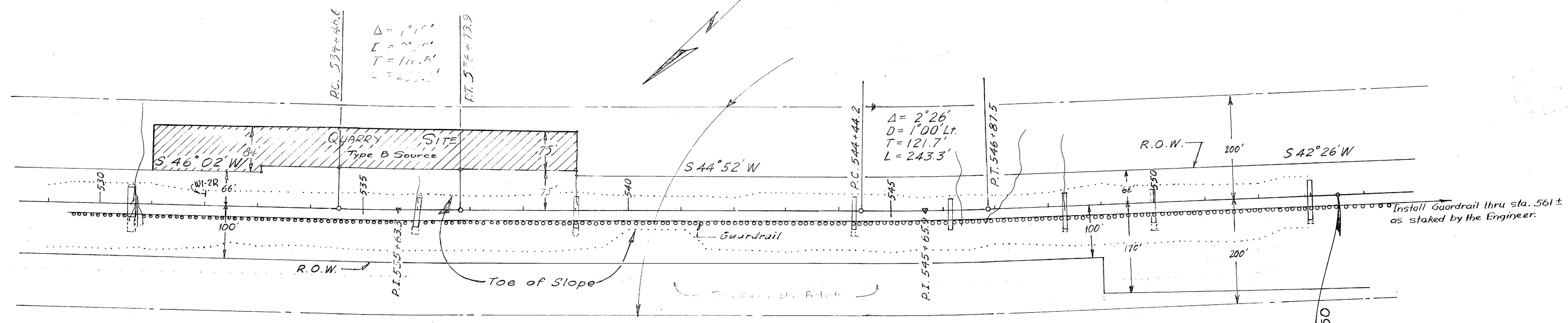


BEGINNING PROJECT Sta. 506+50

(See Next Sheet)

# TONGAS NATIONAL FOREST

PLAN  
 SURVEYED  
 PLOTTED  
 ALIGNMENT CHECKED  
 RT. OF WAY CHECKED  
 NO.



# FRITZ COVE

PROFILE  
 SURVEYED  
 GRADES CHECKED  
 B.M.'S NOTED  
 STRUCTURE NOTED  
 NO.

