

# STATE OF ALASKA DEPARTMENT OF HIGHWAYS

## PLAN AND PROFILE PROPOSED HIGHWAY PROJECT

S-0966(6)  
MENDENHALL LOOP ROAD  
AUKE BAY TO MENDENHALL RIVER  
GRADING, DRAINAGE, PAVING &  
BRIDGE

*As-Built Plans  
Green Construction Co.  
John S. McGrath, Proj. Eng.  
Work Began 6-20-68  
Work Actually Completed 11-15-68*

STATE	ROUTE DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-0966(6)	1968	1	36

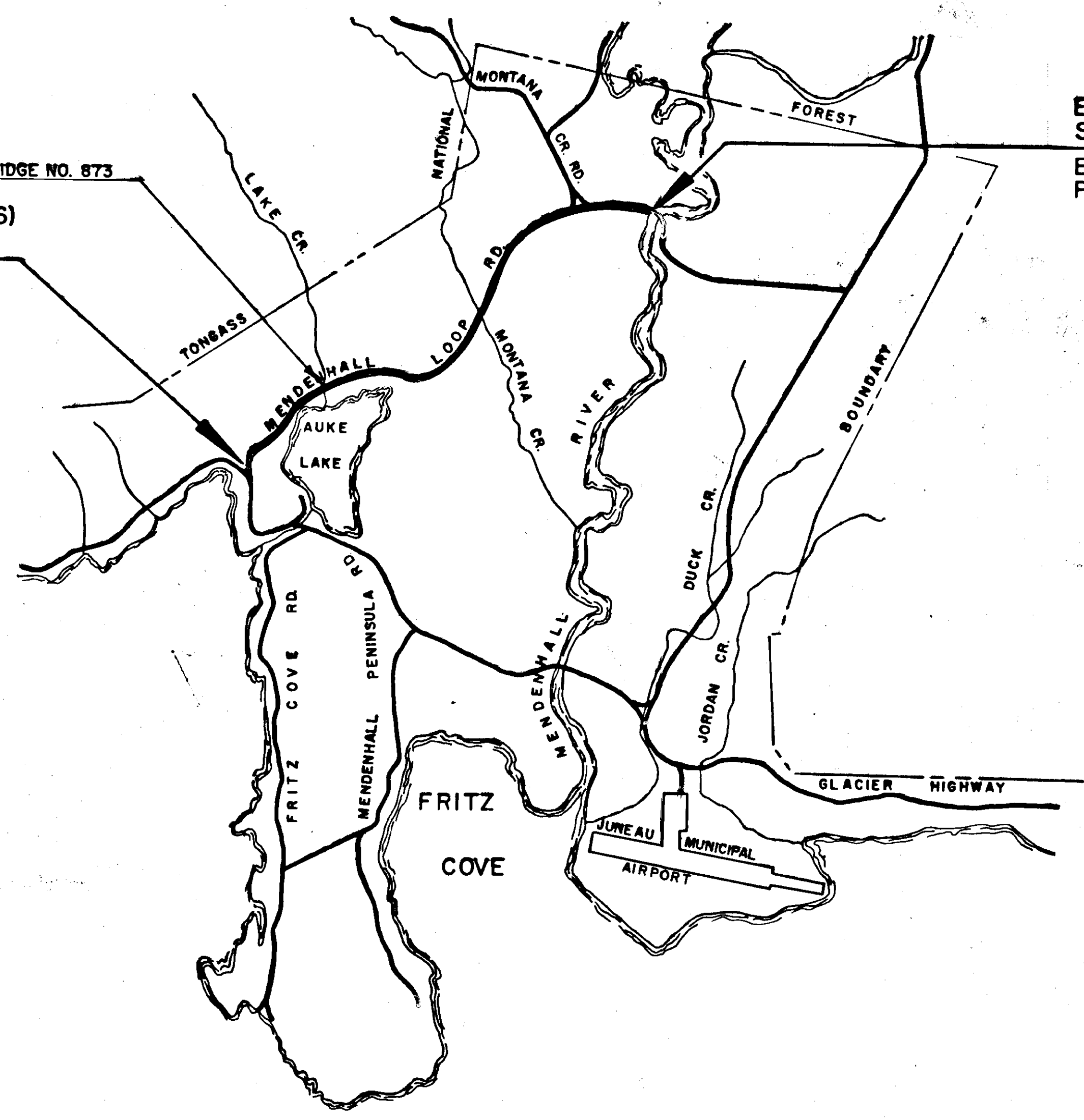
### INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	Typical Section & Estimated Quantities
3-8	Plan & Profile Sheets
9	Intersection Plan & Approach Plan
10	Culvert Details
11	Culvert Summary & Subdrain Details
12	Summary of Standard Signs
13-21	Bridge Sheets
22	Brass Cap Monuments & Monument Cases

The following standard drawings apply to this project: D-1, M-1, M-3, R-5, T-1, T-2, T-11, T-15, T-16 (Sheets 1 & 2), T-17, T-18, T-19, T-20.

BEGINNING OF PROJECT NO. S-0966(6)  
Sta. "0" 150+90.00  
EQUALS Sta 150+90.00  
PROJECT No. FH2 SECTION D-6

END OF PROJECT No. S-0966(6)  
Sta. "0" 301+33.00  
EQUALS STA. 301+33.00  
PROJECT No. FH2, D-6, E-3, H-3



*No Change in Length*

### PROJECT SUMMARY

WIDTH of ROADBED	= 26'
WIDTH of PAVEMENT	= 24'
LENGTH of GRADING	= 14901.37' = 2.822 MI.
LENGTH of PAVING	= 15000.70' = 2.841 MI.
LENGTH of BRIDGE	= 37.10' = 0.007 MI.
LENGTH of PROJECT	= 15037.80' = 2.848 MI.

#### CONVENTIONAL SIGNS

RIGHT-OF-WAY LINE	
PROPOSED GUARD RAIL	
PROPOSED SURVEY MONUMENT	
EXISTING SURVEY MONUMENT	
PROPOSED RIGHT-OF-WAY MARKER	
TRANSIT POINTS	
LINEAIRE (MAST ARM MOUNTED)	
EXISTING	
PROPOSED	
EXISTING CULVERT	
PROPOSED PIPE CONDUIT	
ROADWAY HINGE POINT	
PAVEMENT BLOCK	
PAVEMENT LINE	

NOTE: Minor Equations not Shown

### DESIGN DESIGNATION

ADT (1967) = 390  
D = 40-60%  
T = 5%  
V = 40 M.P.H.

STATE OF ALASKA  
DEPARTMENT OF HIGHWAYS  
APPROVED  
*[Signature]*  
COMMISSIONER OF HIGHWAYS  
Date: 7 April 1968

# TYPICAL SECTION OF IMPROVEMENT

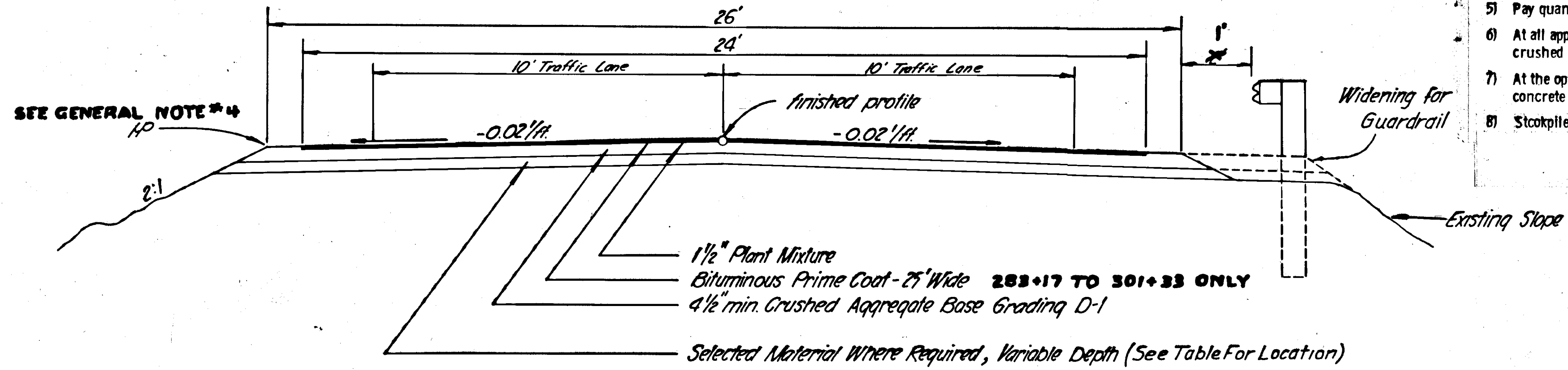
STATION 156+00.00 TO STATION 301+33.00

TEMPORARY TRANSITION

STATION 150+90.00 TO STATION 156+00.00

## SELECT MATERIAL LOCATIONS

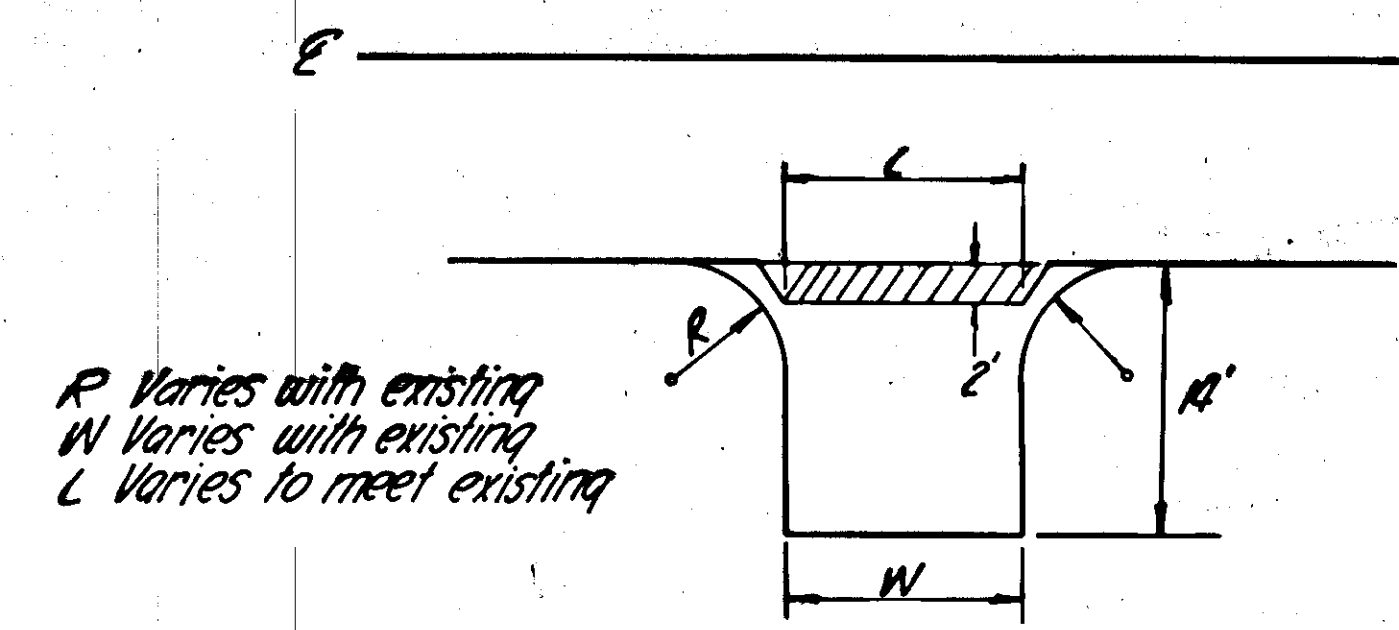
Station	Quan.
10' 239+00 TO 10' 255+00	3480 Cu Yd
10' 288+00 TO 10' 298+00	3810 Cu Yd
Backfill for pipe at Little Auks Creek	23 Cu Yd



## GENERAL NOTES

**'AS BUILT'**

- Grades and alignment shown on these plans are subject to minor revisions.
- Culvert lengths and locations are approximate only and are subject to minor revisions.
- All waste and/or surplus material encountered on this project will be disposed of by the contractor at locations of his own choice and as approved by the engineer. There is no payment for haul or overhaul of any material on this project.
- Superelevation shall be rotated about the centerline of roadway. Full superelevation shall be attained at the P. C. (or P. S. C.) except as noted, and carried through the curve to the P. T. (or P. C. S.) except as noted on the plans. The superelevation runoff distance shall be the spiral length where applicable; otherwise 200 feet, except that on short tangents between curves of reversed direction the transition shall be at a uniform rate between points of full superelevation.
- Pay quantity for porous backfill for underdrains, Item No. 605(20) shall be based on plan trench width.
- At all approaches, the roadway pavement shall be widened two (2) feet. Approaches shall be surfaced with crushed aggregate base course to a distance of 14 feet from the normal edge of roadway pavement.
- At the option of the Contractor corrugated aluminum pipe, corrugated galvanized steel pipe, or reinforced concrete pipe may be furnished for pay items 603(26), pipe conduit.
- Stockpile material to be used as shown in Specifications.



APPROACH ROAD PAVING DETAIL

## ESTIMATED QUANTITIES

ITEM No.	ITEM	UNIT	TOTAL	ITEM No.	ITEM	UNIT	TOTAL
1	Furnishing and Maintaining Engineering Facilities	L. S.	All Req'd	605(18)	8" Perforated Pipe Underdrain	L. F.	1034
202(1)	Removal of Structures and Obstructions	L. S.	All Req'd	605(20)	Porous Backfill Material for Pipe Underdrain	C. Y.	293
203(3)	Unclassified Excavation	C. Y.	833	606(1)	Beam type Guardrail, Type I Post *	L. F.	1350
203(14)	Selected Material	C. Y.	7,500	610(2)	Structural Plate Pipe Arch, 6'-4" span, 4'-9" rise, 12 gage (10 gage Invert Plates)	L. F.	68
206(1)	Structure Excavation	C. Y.	450	613(2)	Culvert Marker Posts	Each	6
207(1)	Class I Excavation for Structures	C. Y.	175	613(3)	Guide Posts	Each	2
304(1)	Crushed Aggregate Base Course, Grading D-1	Ton	11,770	614(1)	Survey Monuments	Each	30
306(1)	Reconditioning	Sta.	149.03	614(2)	Monument Cases	Each	30
403(4)	Plant Mixture	Ton	3413	615(1)	Standard Signs	Each	22
408(2)	MC-30 Liquid Asphalt for Prime Coat	Ton	41.87	615(3)	Remove and Relocate Existing Signs	Each	1
601(1)	Class A Concrete (Approximately 121.8 Cu. Yds.)	L. S.	All Req'd	630(4)	Cast-in-Place Concrete Piles, furnished and driven	L. F.	512
602(1)	Reinforcing Steel (Approximately 23,577 Lbs.)	L. S.	All Req'd	634(1)	Steel Beam Bridge Railing	L. F.	370
603(26A)	8" Pipe Conduit	L. F.	68				
603(26G)	24" Pipe Conduit	L. F.	134				

\* See Sheet 10 for Detail of Posts on Headwalls (10 Required)  
See Sheet 13 for Detail of Special Posts @ Bridges (6 Required)

BASIS FOR ESTIMATING QUANTITIES	
Crushed Aggregate Base	145 Lbs/Cu Ft
Plant Mixture	112 Lbs/Sq Yd-Inch
Asphalt Cement	5.4% of Plant Mix
Prime Coat	0.25 Gal/Sq Yd

## APPROACH ROADS LOCATION

Station	1/R	L	Station	1/R	L	Sta.	1/2
151+46	Lt.	29'	196+63	Rt.	23'	167+75	Rt.
154+00	Rt.	20'	202+50	Lt.	20' 25"	198+50	Lt.
154+50	Lt.	20' 30"	202+50	Rt.	20' 30"	199+50	Rt.
156+20	Lt.	20'	210+50	Rt.	20'	203+00	Lt.
157+00	Lt.	30'	215+36	Lt.	20'	221+75	Lt.
158+00	Lt.	20'	218+00	Rt.	20' 30"	231+76	Rt.
159+19	Lt.	28'	217+34	Lt.	29'	246+80	Rt.
161+18	Lt.	22'	218+00	Rt.	22'		
163+00	Lt.	22'	220+13	Lt.	20'		
164+17	Lt.	20'	222+50	Rt.	20' 25"		
165+24	Rt.	20' 30"	223+14	Lt.	20' 25"		
165+44	Lt.	20'	225+50	Rt.	22'		
169+63	Lt.	20'	229+00	Lt.	20' 30"		
170+75	Rt.	40'	230+62	Rt.	22'		
171+75	Rt.	40'	234+50	Rt.	27'		
172+71	Lt.	20'	235+73	Rt.	25'		
176+79	Lt.	24' 30"	237+00	Rt.	100'		
177+50	Lt.	27'	238+30	Lt.	20' 25"		
179+72	Rt.	20' 30"	240+28	Rt.	20' 25"		
181+00-10	Rt.	30'	245+32	Rt.	20'		
182+10	Rt.	20' 25"	254+00	Lt.	20' 25"		
182+45	Lt.	30'	259+00	Rt.	20' 25"		
184+50	Rt.	20' 30"	272+75	271+10	Rt.	20' 25"	
185+30	Rt.	25' 30"	273+50	Lt.	20'		
185+50	Lt.	20'	286+28	Rt.	22'		
187+00	Rt.	24'	288+00	Rt.	20' 25"		
189+85	Rt.	21' 25"	289+89	Rt.	28'		
190+50	Lt.	20'	293+50	Rt.	20' 30"		
193+00	Lt.	20'	300+10	Lt.	30'		
194+26	Rt.	20'	301+00	Lt.	100'		
196+10	Rt.	20' 25"					
196+63	Lt.	20'					

\* See sheet 9

DELETED

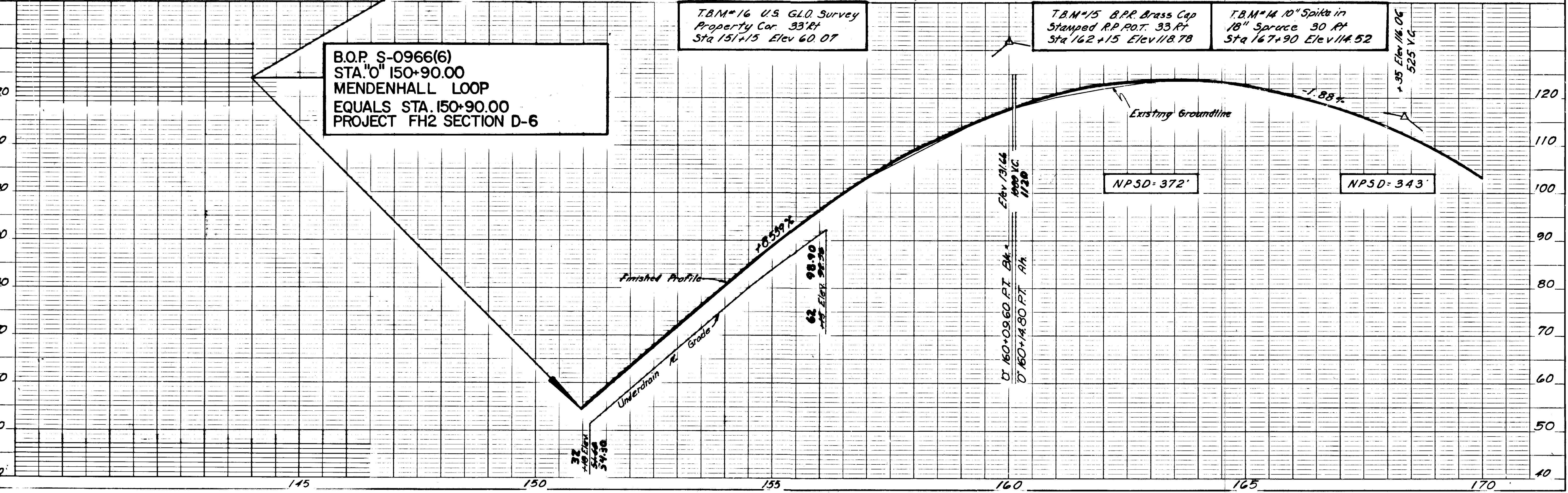
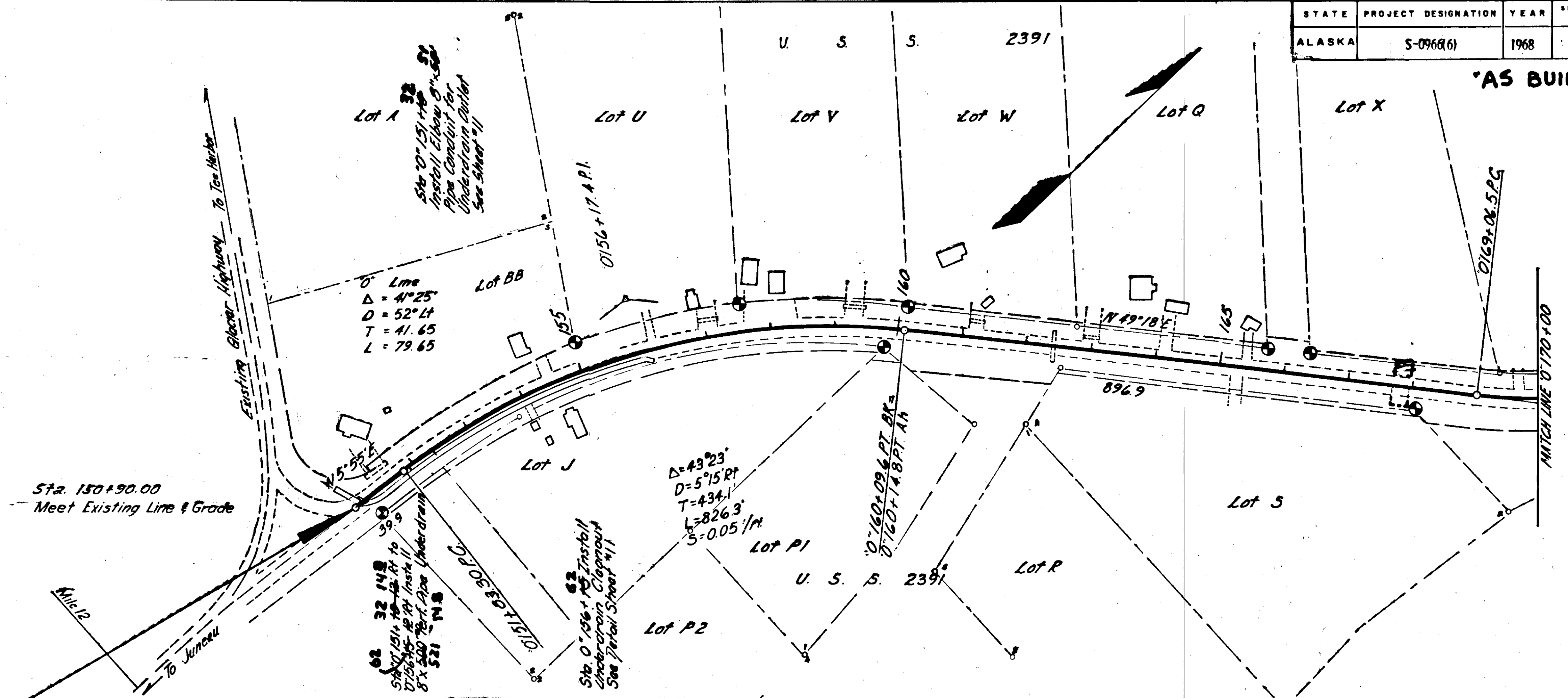
GUARD RAIL TABLE			
Station to	Station	Length	Side
196+83.43	197+83.43	100'	Rt.
197+00.57	198+00.57	100'	Lt.
203+49.9	207+50	412.5'	Lt.
204+54.2	207+00	237.5'	Rt.
236+43	237+18	75'	Rt.
236+64	237+14	50'	Lt.
238+18	238+93	75'	Lt.
238+22	238+72	50'	Rt.
300+56	301+31	75'	Rt.
300+81	301+31	50'	Lt.
303+75	304+25	50'	Rt.
303+75	304+50	75'	Lt.

BRIDGE RAILING			
Station to	Station	Length	Side
182+20.30	184+01.55	185' 185'	Rt.
182+63.55	184+44.80	185' 185'	Lt.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-0966(6)	1968	3	36

"AS BUILT"



B.O.P. S-0966(6)  
 STA. "O" 150+90.00  
 MENDENHALL LOOP  
 EQUALS STA. 150+90.00  
 PROJECT FH2 SECTION D-6

T.B.M. #16 U.S. G.L.O. Survey  
 Property Cor. 33' Rt  
 Sta 151+15 Elev 60.07

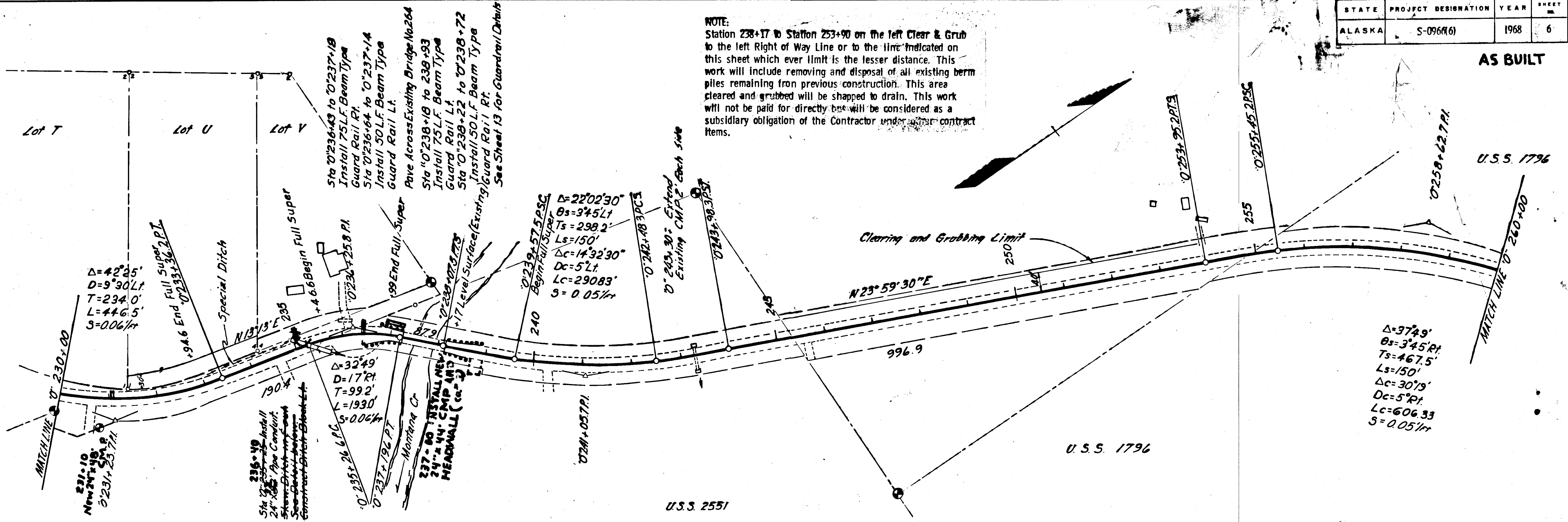
T.B.M. #15 B.P.R. Brass Cap  
 Stamped R.P.P.O.T. 33' Rt  
 Sta 162+15 Elev 118.78

T.B.M. #14 10" Spike in  
 18" Spruce 30' Rt  
 Sta 167+90 Elev 114.52





AS BUILT

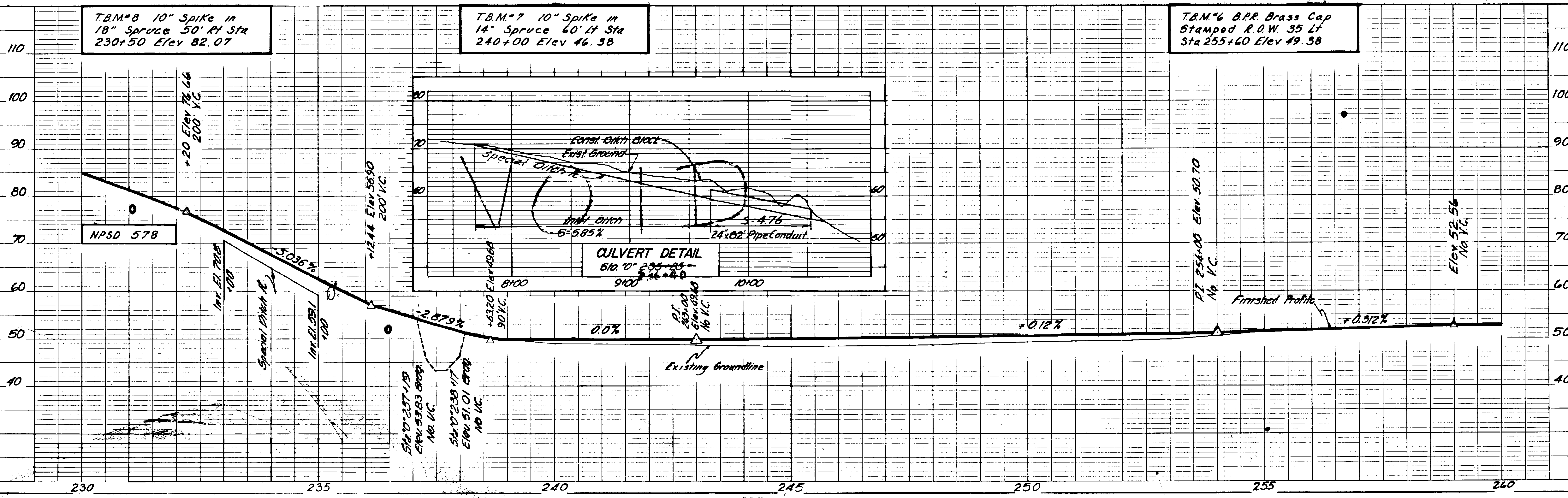


NOTE:  
 Station 238+17 to Station 253+90 on the left Clear & Grub to the left Right of Way Line or to the line indicated on this sheet which ever limit is the lesser distance. This work will include removing and disposal of all existing berm piles remaining from previous construction. This area cleared and grubbed will be shapped to drain. This work will not be paid for directly but will be considered as a subsidiary obligation of the Contractor under other contract items.

T.B.M.#8 10" Spike in 18" Spruce 50' Lt Sta 230+50 Elev 82.07

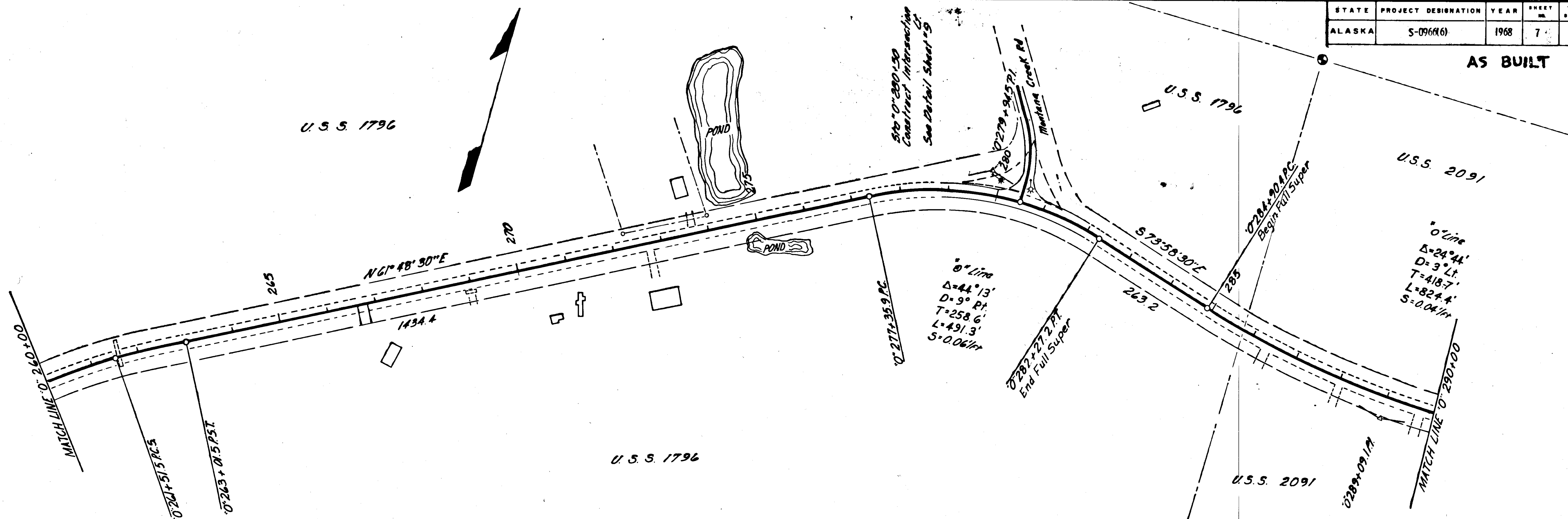
T.B.M.#7 10" Spike in 14" Spruce 60' Lt Sta 240+00 Elev 46.38

T.B.M.#6 B.P.R. Brass Cap Stamped R.O.W. 35 Lt Sta 255+60 Elev 49.38



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-096(6)	1968	7	36

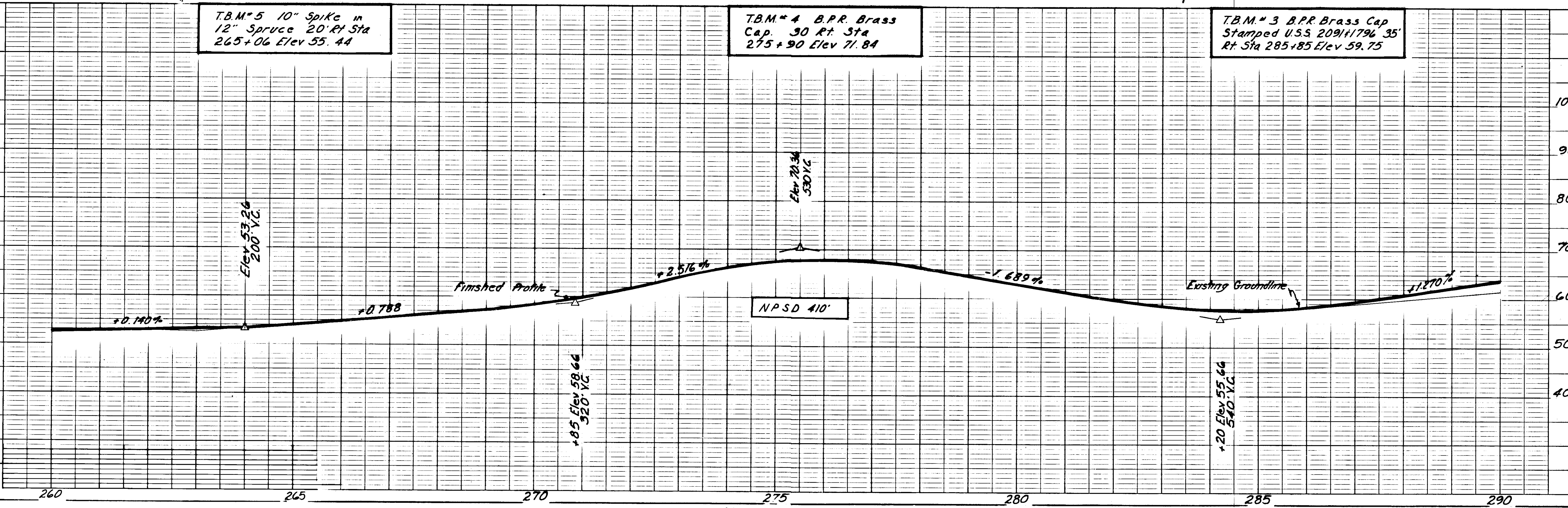
AS BUILT



T.B.M.# 5 10" Spike in  
12" Spruce 20' Rt Sta  
265+06 Elev 55.44

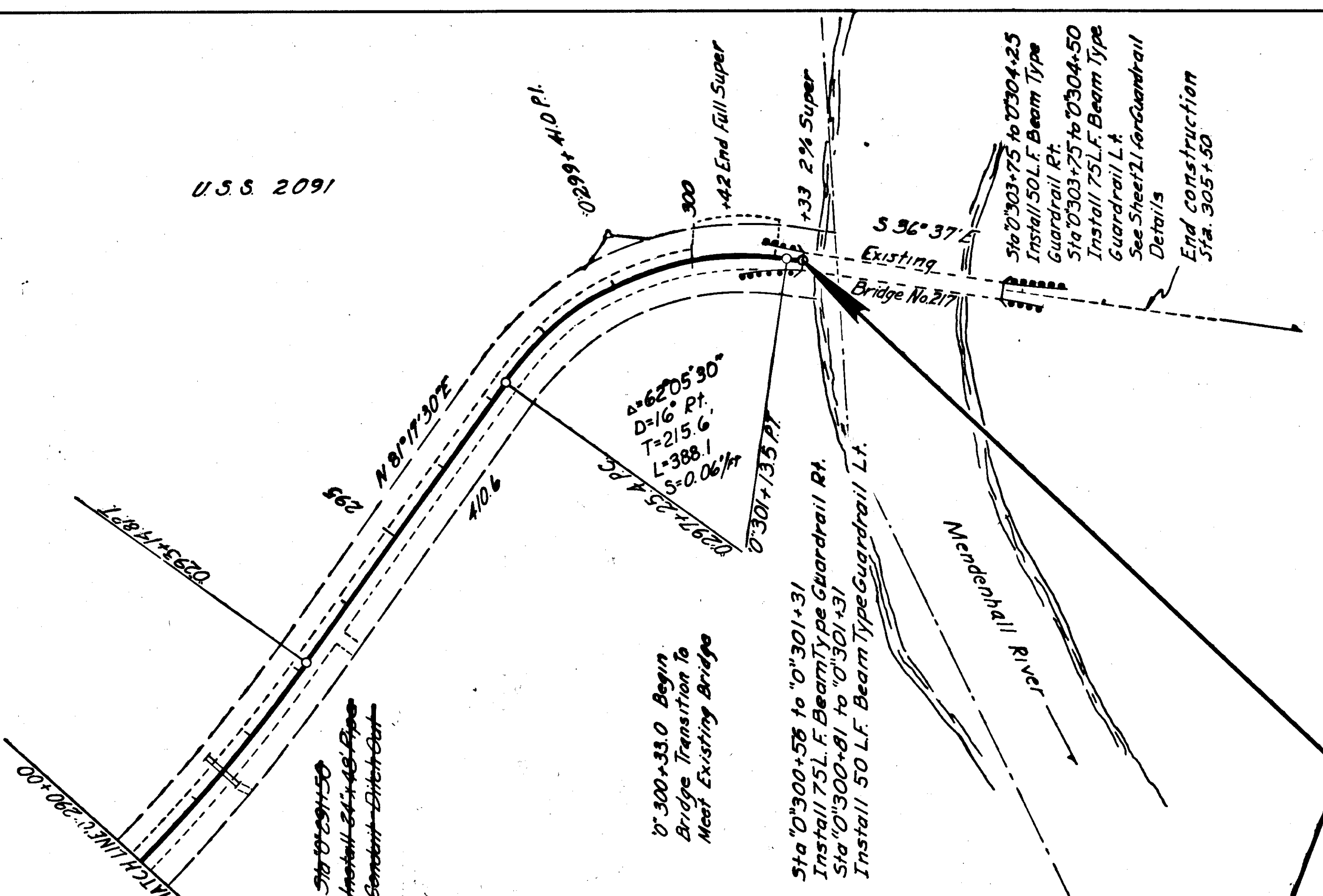
T.B.M.# 4 B.P.R. Brass  
Cap. 30' Rt. Sta  
275+90 Elev 71.84

T.B.M.# 3 B.P.R. Brass Cap  
Stamped U.S.S. 2091/1796 35'  
Rt. Sta 285+85 Elev 59.75



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-0966(6)	1968	8	36

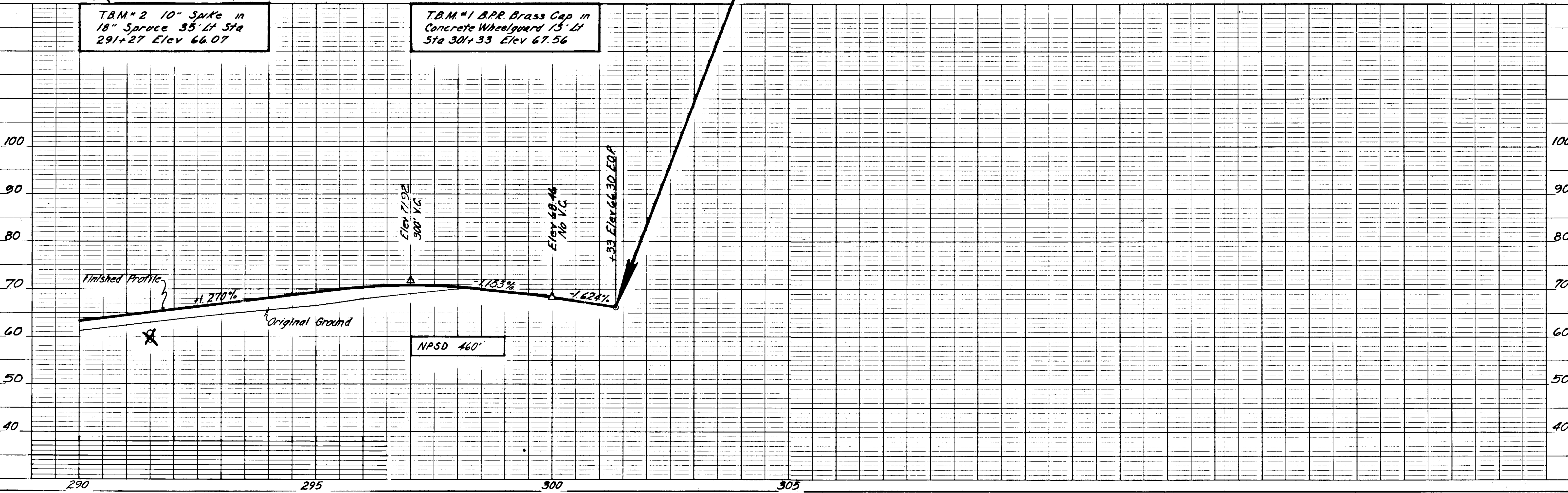
AS BUILT



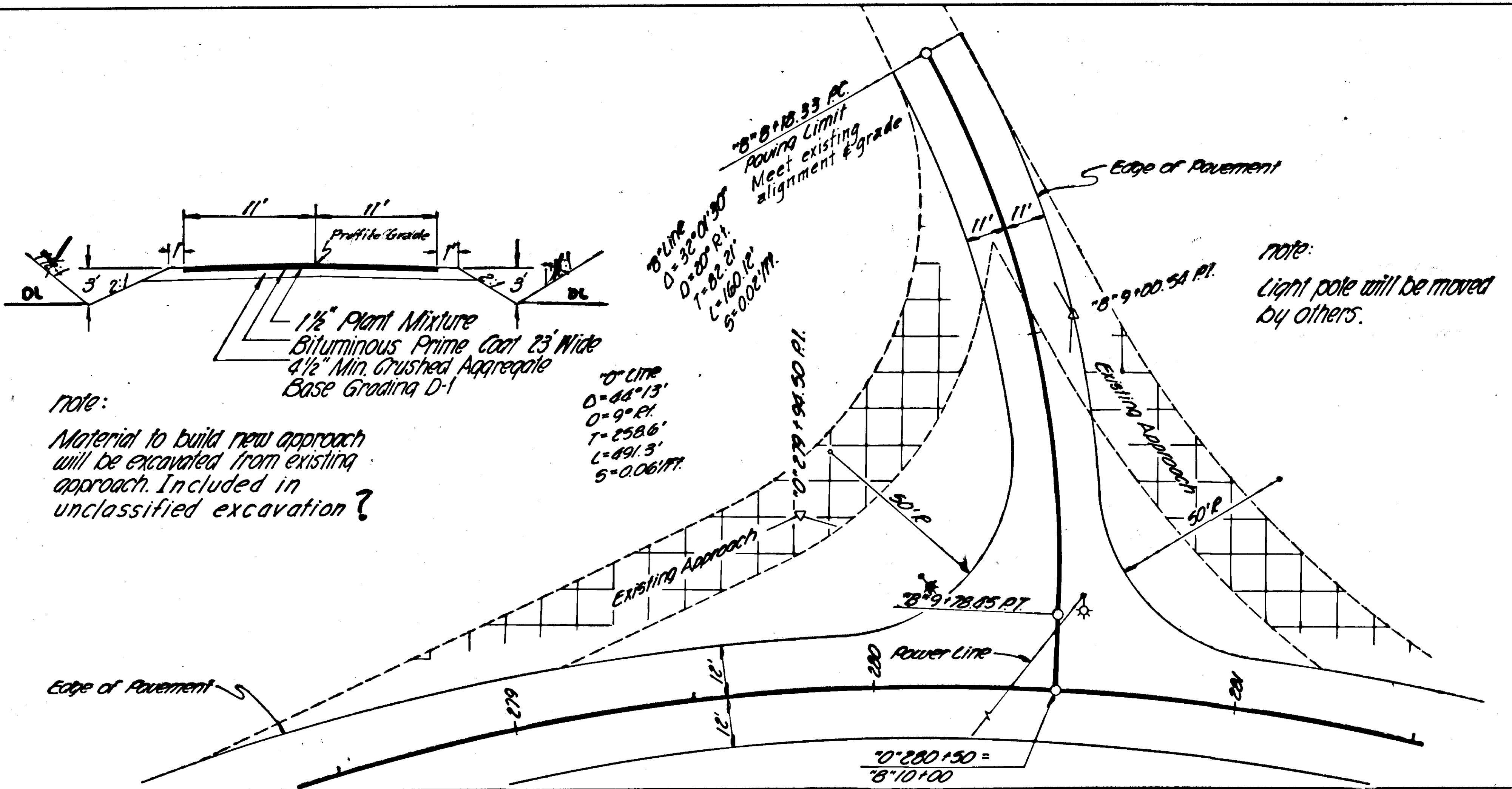
END OF PROJECT  
 S-0966(6) STA. "0" 301+33.0  
 EQUALS STA. 301+33.0  
 PROJECT No. FH2, D-6, E-3, H-3

T.B.M. #2 10" Spike in  
 18" Spruce 35' Lt Sta  
 291+27 Elev 66.07

T.B.M. #1 B.P.P. Brass Cap in  
 Concrete Wheelguard 15' Lt  
 Sta 301+33 Elev 67.56



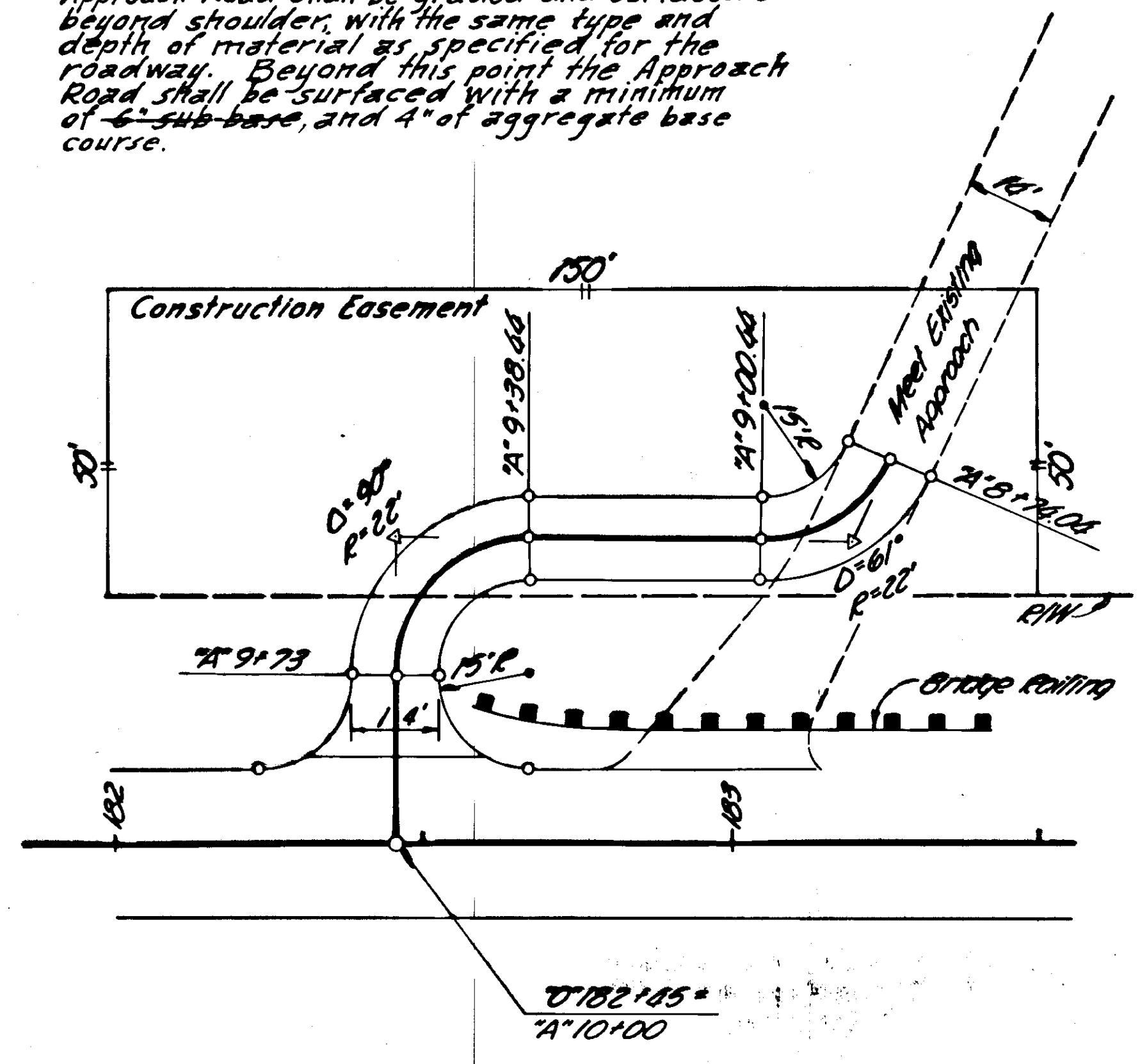
AS BUILT



note:  
Material to build new approach will be excavated from existing approach. Included in unclassified excavation?

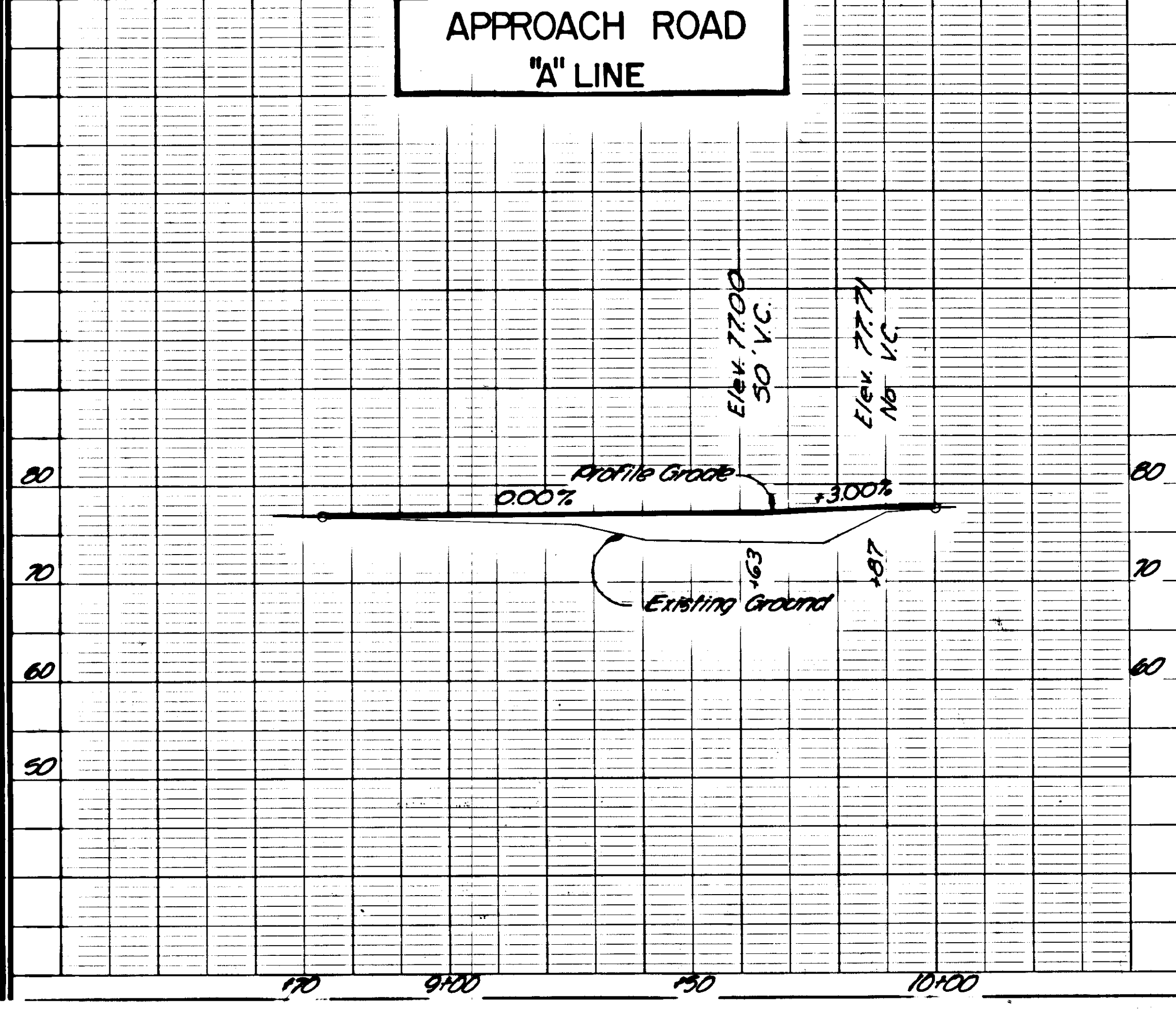
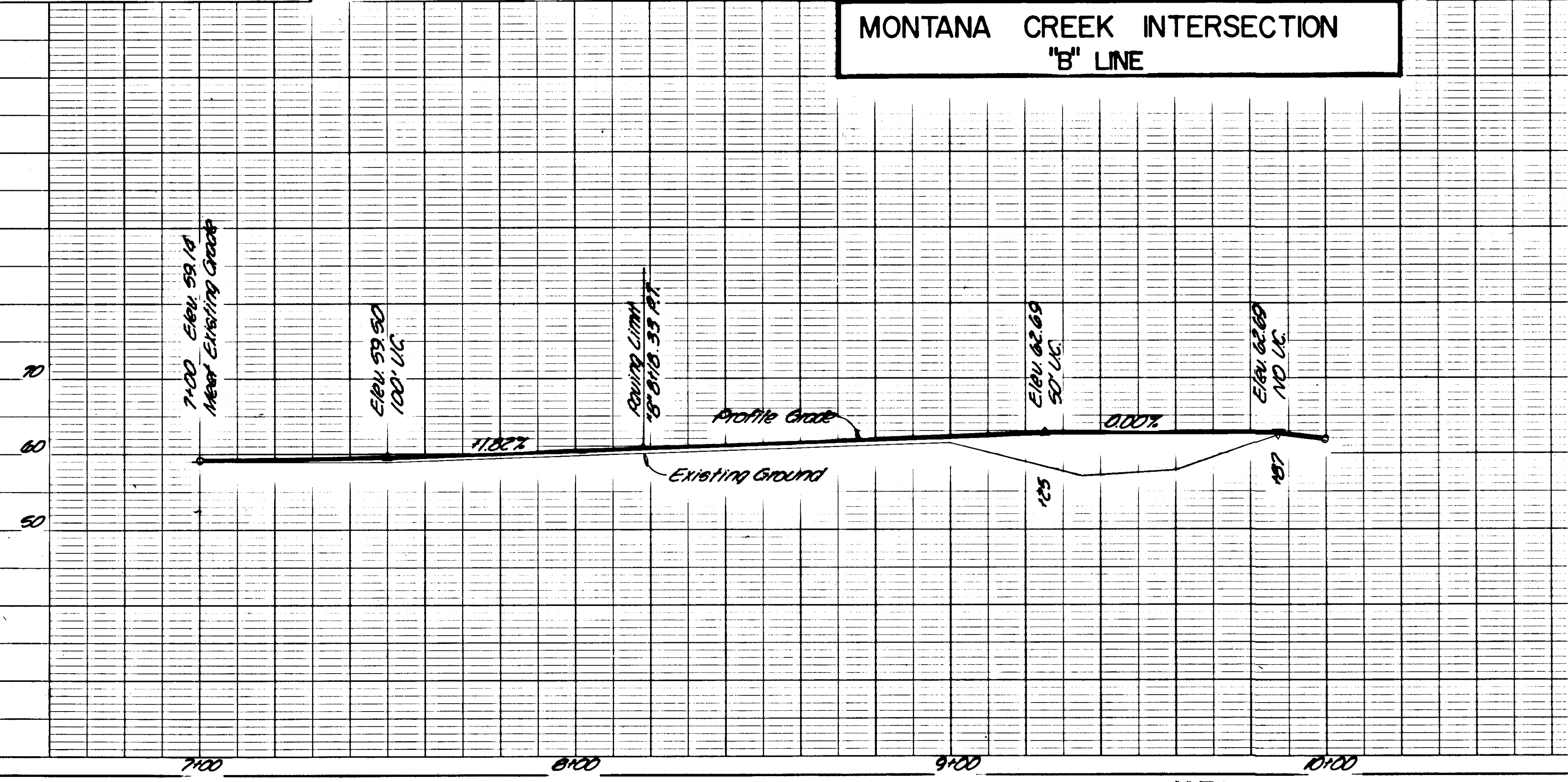
note:  
Light pole will be moved by others.

Note:  
Approach Road shall be graded and surfaced 5' beyond shoulder, with the same type and depth of material as specified for the roadway. Beyond this point the Approach Road shall be surfaced with a minimum of 6" sub-base, and 4" of aggregate base course.



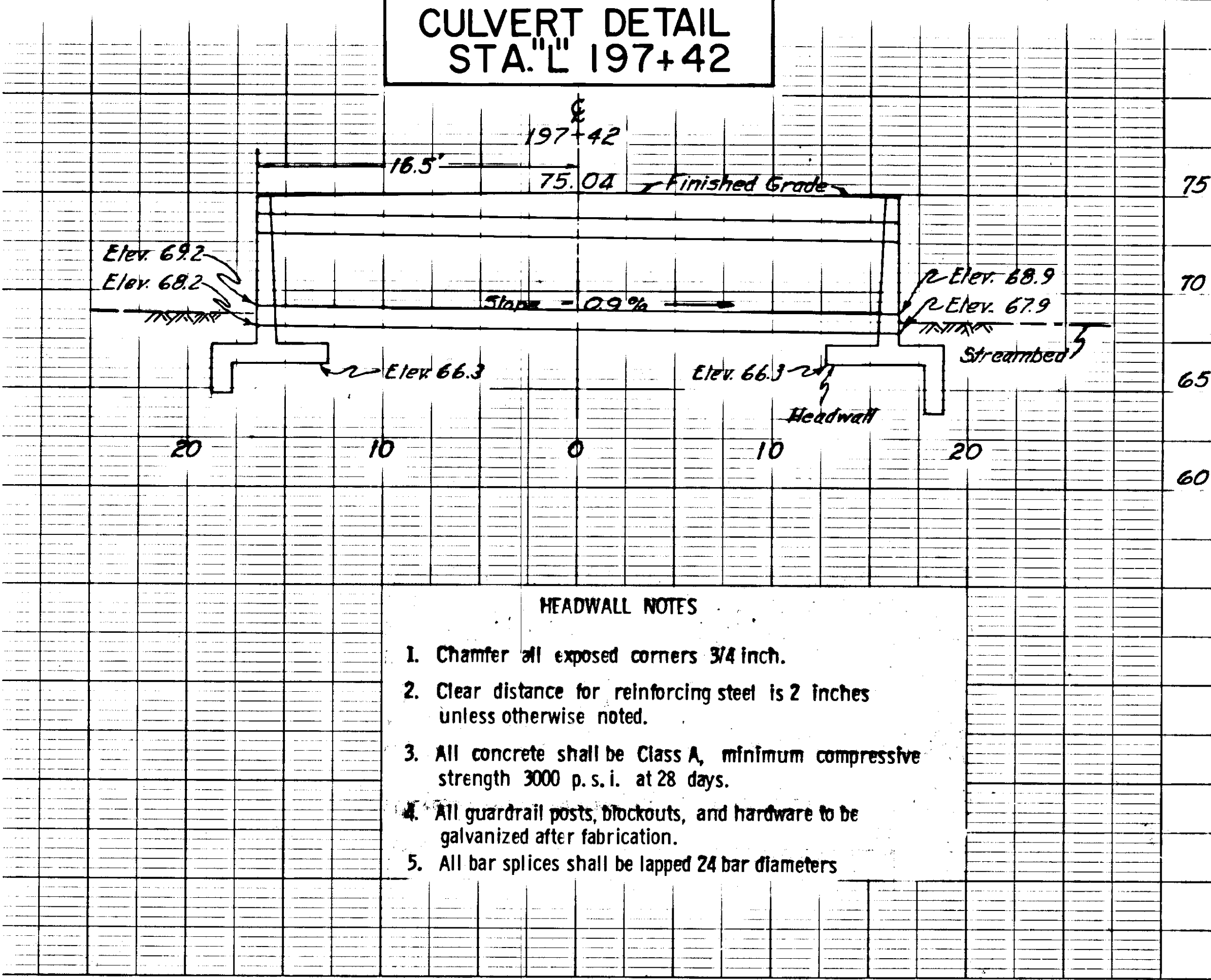
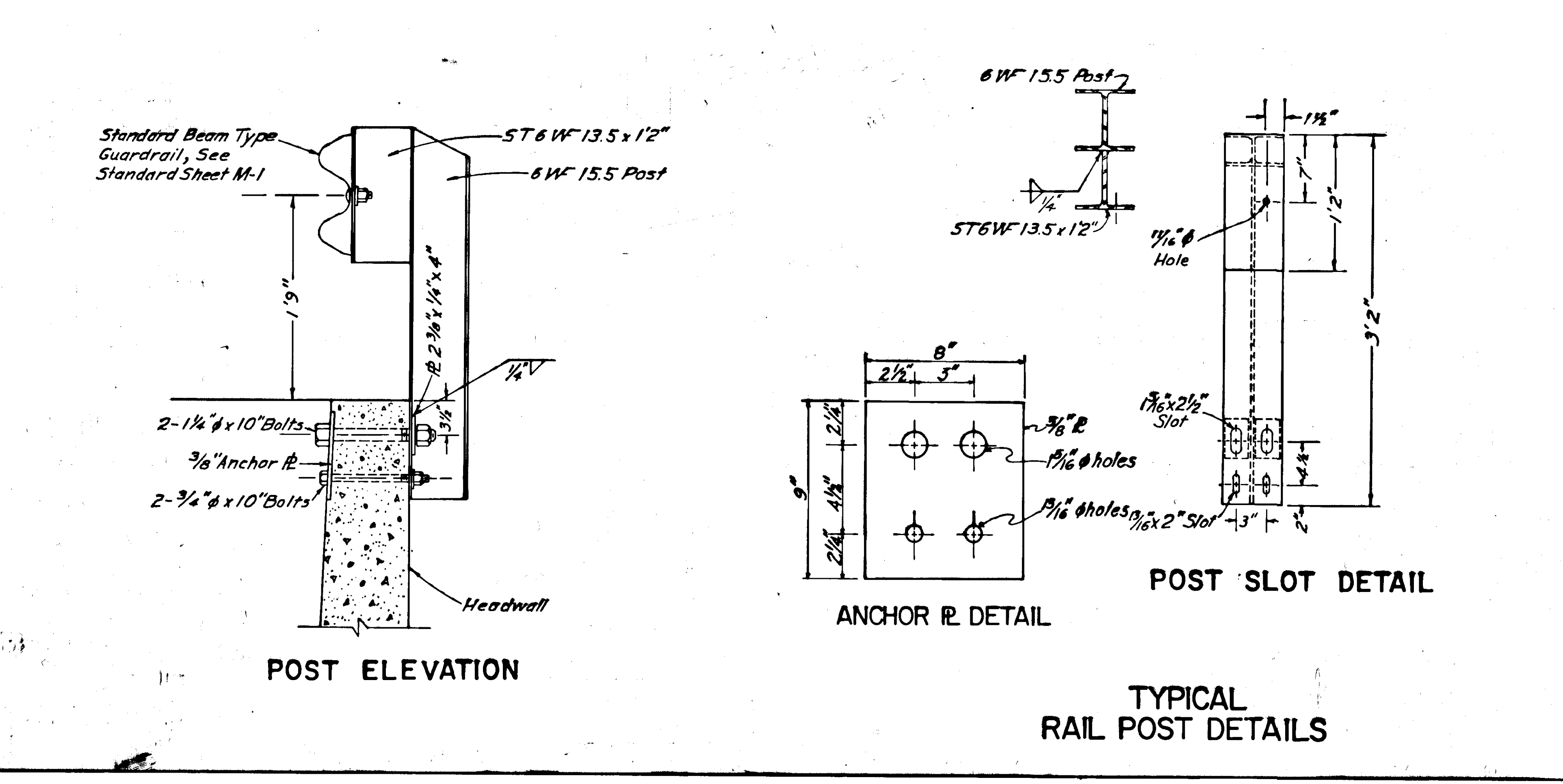
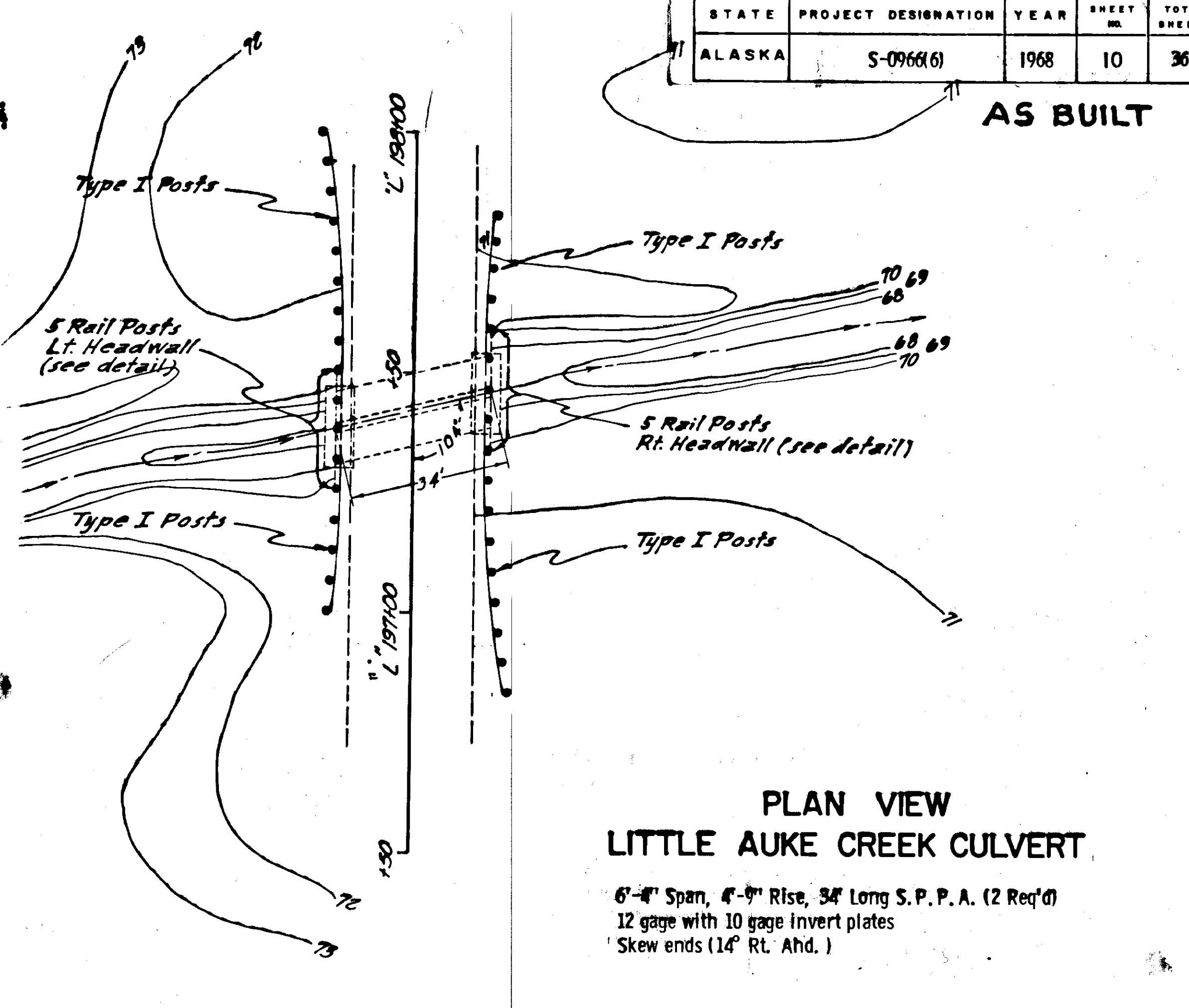
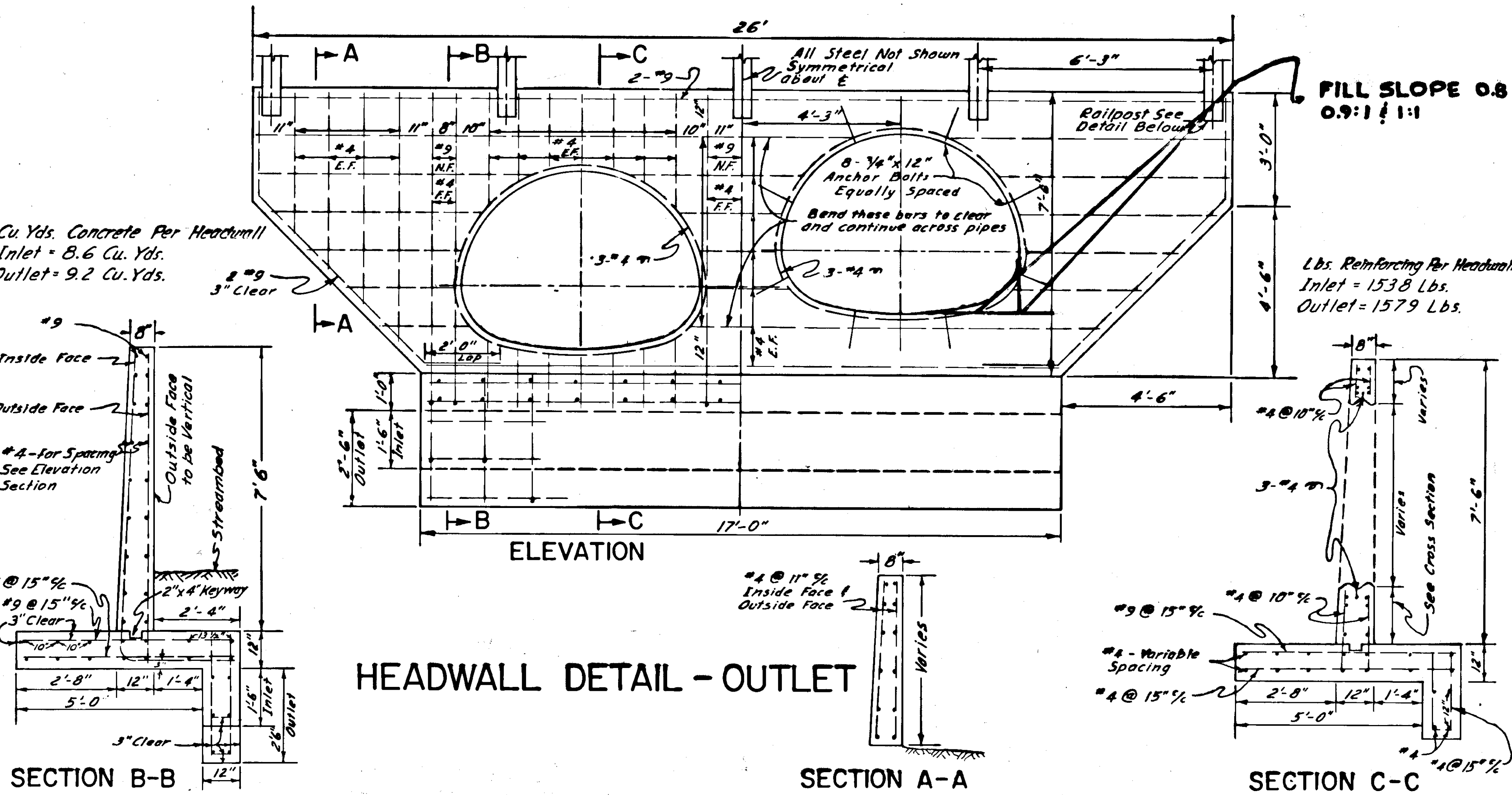
MONTANA CREEK INTERSECTION "B" LINE

APPROACH ROAD "A" LINE



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-0966(6)	1968	10	36

AS BUILT

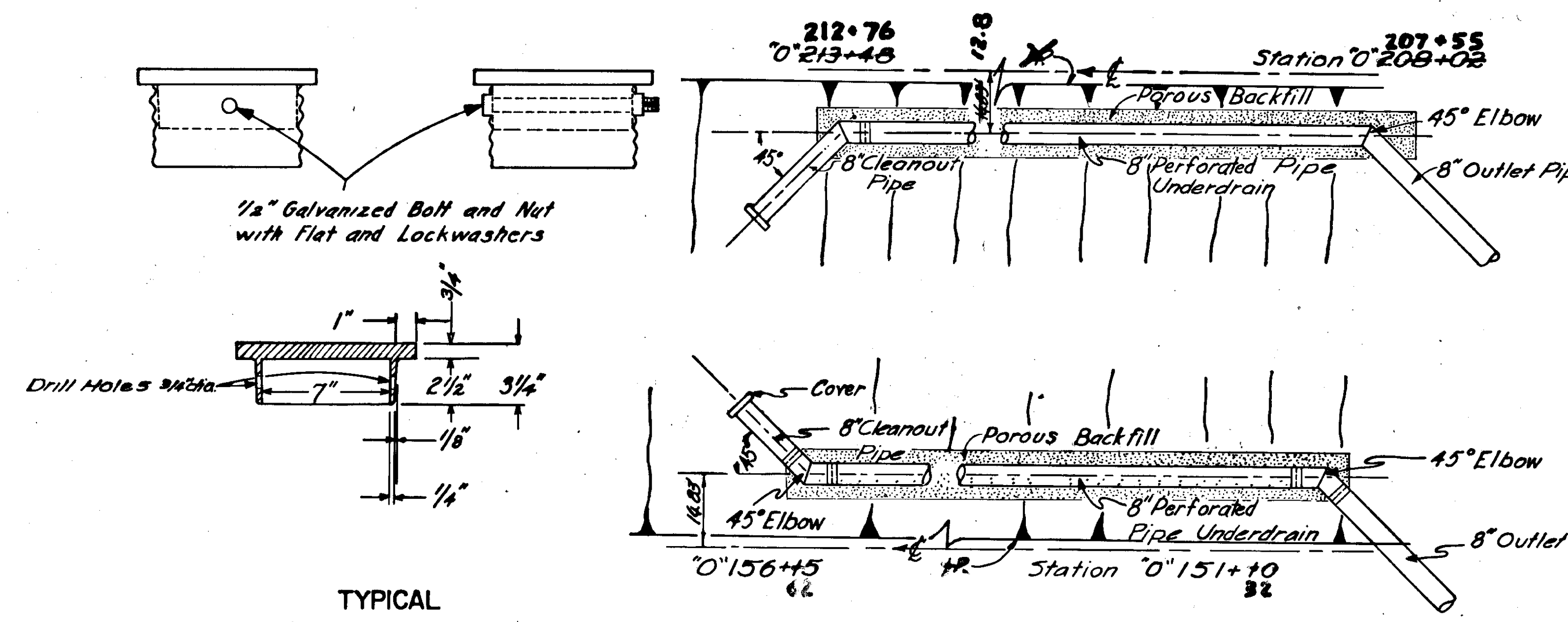
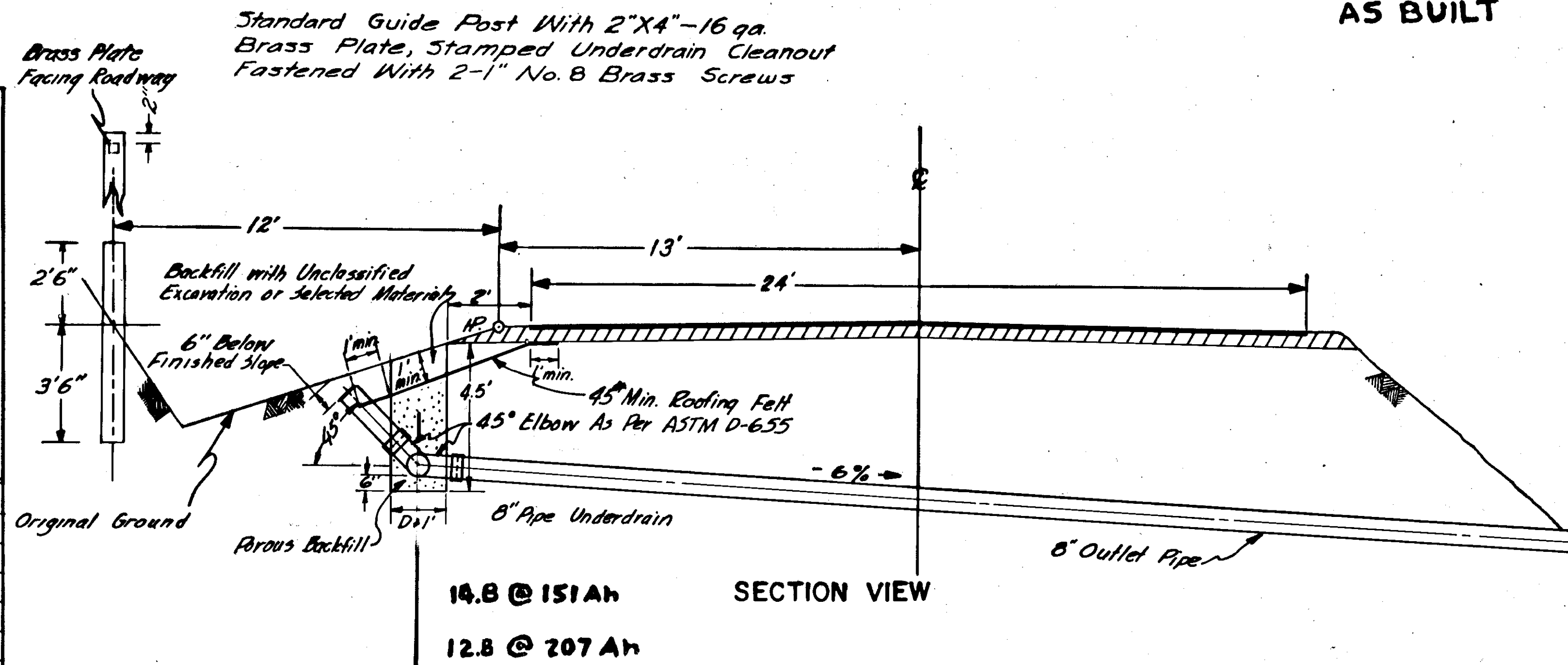


# CULVERT SUMMARY

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	S-096(6)	1968	11

AS BUILT

Station	206(1)		603(2)		605(1B)		605(20)		610(2A)		613(2)		613(3)		Remarks
	Structure Excavation	8" Pipe Conduit	24" Pipe Conduit	8" Perforated Pipe Underdrain	Porous Backfill For Underdrain	6 1/4" x 9" Struct. Plate Pipe Arch	Culvert Marker Posts	Guide Posts							
	Cu Yd	L.F.	L.F.	L.F.	Cu Yd	L.F.	Each	Each							
151+10 To 156+15	154	52	4		500	147									
197+42	24								68						
208+02 To 213+48	153	0	4		534	146								1	
235+25	47		82									2			
243+30±			4									2		Extend Existing Culvert	
291+50	40		48									2			
Totals	418	68	134		1034	293	68	6	2						



# SPECIAL DITCH SUMMARY

Station to Station	Lt./Rt.	Length	Unclassified Exc. Cu Yd Item 203 (3)	Section Detailed On Sheet No.	Remarks
L 233+00 to L 235+00	Lt	200'	40		Profile on Sheet No 6
L 235+36	Rt	0'	5		(Ditch Out)
L 291+50	Rt	20'	5		"

# SUBDRAIN DETAILS

Note:  
Cleanout Covers, Elbows, and Other Fittings will be Incidental to other Pay Items of work.

# SIGN LOCATIONS and DESCRIPTIONS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	S-0966(6)	1968	12	36

AS BUILT

LINE	STATION	Dist. From G		TYPE	LEGEND	REMARKS	LINE	STATION	Dist. From G		TYPE	LEGEND	REMARKS
		Left	Right						Left	Right			
0	153+51	✓		Mile Post	7	Existing, left in place	0	289+04	✓		Inform	Litter Barrel 1000' Ahead	Existing left in place
0	155+70		18	W3-1	Stop Ahead		0	292+00		18	W1-1(R)	↗	
0	156+00		18	R2-1	Speed limit 40		0	292+00	✓		W13-1(30)	30 M.P.H.	Under W1-1
0	162+00						0	293+55	✓		Mile Post	4	Existing left in place
0	158+69	✓		button (1)	Reflector	Existing, left in place	0	295+00		18	R2-1	Speed limit 40	
0	164+75						0	299+00		30	W1-6(R)	⇒	
0	168+00		18	W7-1	Hill		0	299+00		30	W1-6(L)	⇐	
0	181+12	✓		Inform	Auke Lake Trail	Existing, left in place							
0	195+10	✓		Mile Post	6	Existing left in place							
0	197+00		18	W1-4(R)	↗								
0	197+00		18	W13-1(35)	35 M.P.H.	Under W1-4							
0	222+50		18	W1-4(R)	↗								
0	222+50		18	W13-1(35)	35 M.P.H.	Under W1-4							
0	225+44		18	W1-3(L)	↙								
0	225+44		18	W13-1(30)	30 M.P.H.	Under W1-3							
0	236+35	✓		W1-6(R)	⇒								
0	236+35	✓		W1-6(L)	⇐								
0	239+58		18	W1-3(L)	↙								
0	239+58		18	W13-1(30)	30 M.P.H.	Under W1-3							
0	243+68	✓		Mile Post	5	Existing left in place							
0	275+50		18	W2-2(L)	⇓								
0	276+36	✓		Inform	Montana Creek Rd.	Existing left in place							
0	276+36	✓		Inform	Mendenhall Lake	Existing left in place							
0	277+10	✓		Inform	Mendenhall Campground	Existing left in place							
0	277+10	✓		Inform	Mendenhall Glacier	Existing left in place							
B	7+00		18	W2-4	⊥								
B	9+40		18	R1-1	Stop	Relocate from 280+65							
0	284+54	✓		Inform	Montana Creek Road	Existing left in place							
0	284+54	✓		Inform	Mendenhall Lake	Existing left in place							
0	285+00		18	W2-2(R)	⇓								

## SUMMARY of SIGNS

DESIGNATION	SIZE	LEGEND	USE IN PLACE	RELOCATE	ERECT
R1-1	30"x30"	Stop		1	
R2-1	24"x30"				2
W1-1(R)	30"x30"	↗			1
W1-3(L)	30"x30"	↙			2
W1-4(R)	30"x30"	↗			2
W1-6(L)	48"x24"	⇐			2
W1-6(R)	48"x24"	⇒			2
W2-2(L)	30"x30"	⇓			1
W2-2(R)	30"x30"	⇓			1
W2-4	30"x30"	⊥			1
W3-1	30"x30"	Stop Ahead			1
W7-1	30"x30"	Hill			2
W13-1(30)	18"x18"	30 M.P.H.			3
W13-1(35)	18"x18"	35 M.P.H.			2
Mile Post		7	1		
Mile Post		6	1		
Mile Post		5	1		
Mile Post		4	1		
Button (1)		Reflector	1		
Inform.		Auke Lake Trail	1		
Inform.		Montana Creek Rd.	2		
Inform.		Mendenhall Lake	2		
Inform.		Mendenhall Campground	1		
Inform.		Mendenhall Glacier	1		
Inform.		Litter Barrel 1000' Ahead	1		
			1		22

SIGN  
TABULATIONS