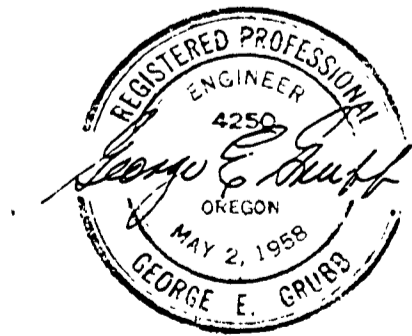
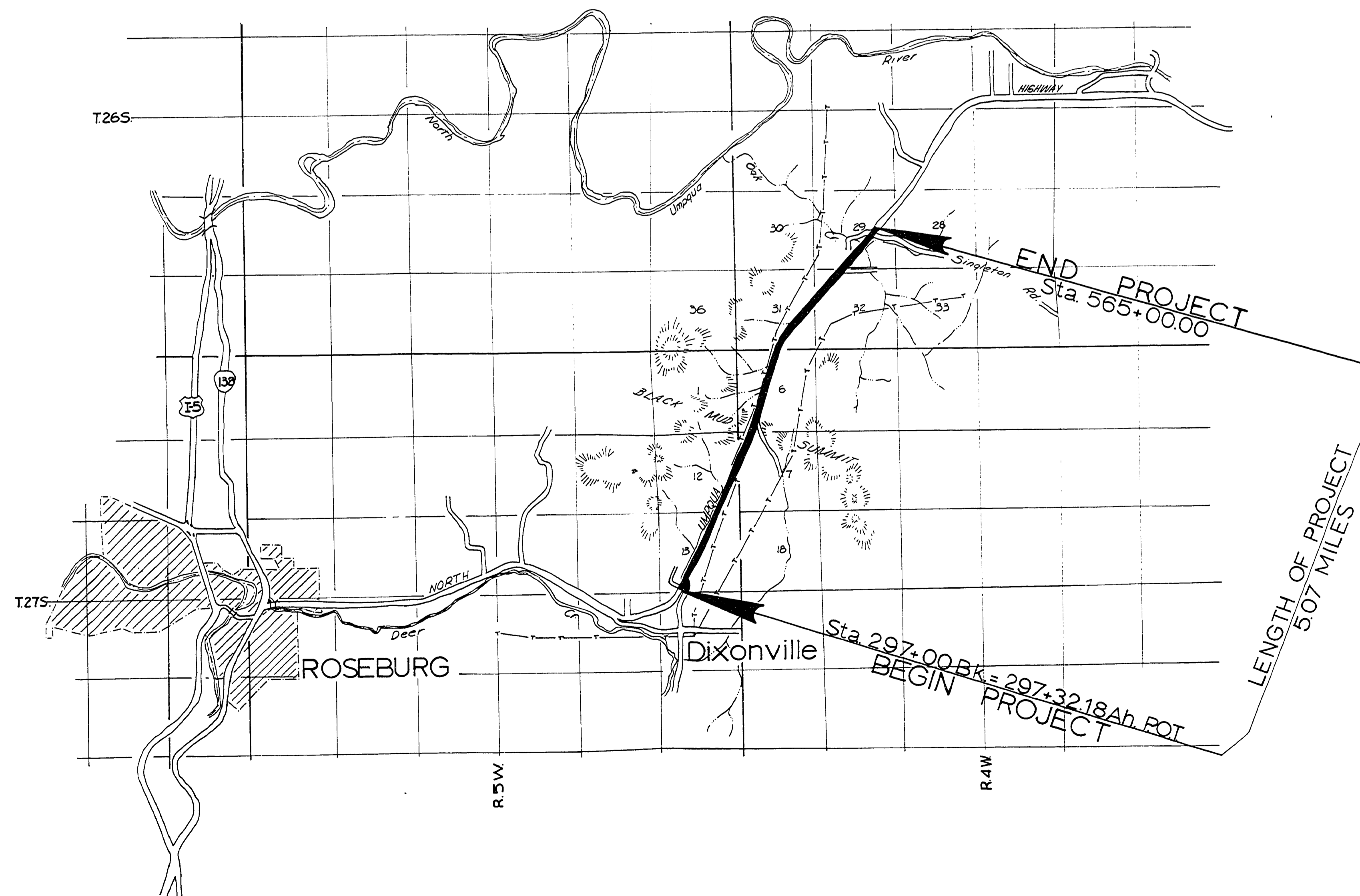


DOUGLAS COUNTY, OREGON
 PLANS FOR PROPOSED PROJECT
 GRADING & SURFACING
NORTH UMPQUA HIGHWAY
 COUNTY ROAD NO.4

APRIL 1970
 M.P. 5.60 to M.P. 10.67

INDEX OF DRAWINGS

SHEET #	1 - TITLE SHEET
	2 & 3 - QUAN. SUMMARIES & ROAD TYPICALS
	4 & 5 - TYPICAL SECTIONS
	6 & 7 - PIPE LIST
	8 - 17 - ROAD PLANS
STD. DWGS.	# 5, 9, 13 & 14
	TOTAL 21 SHEETS



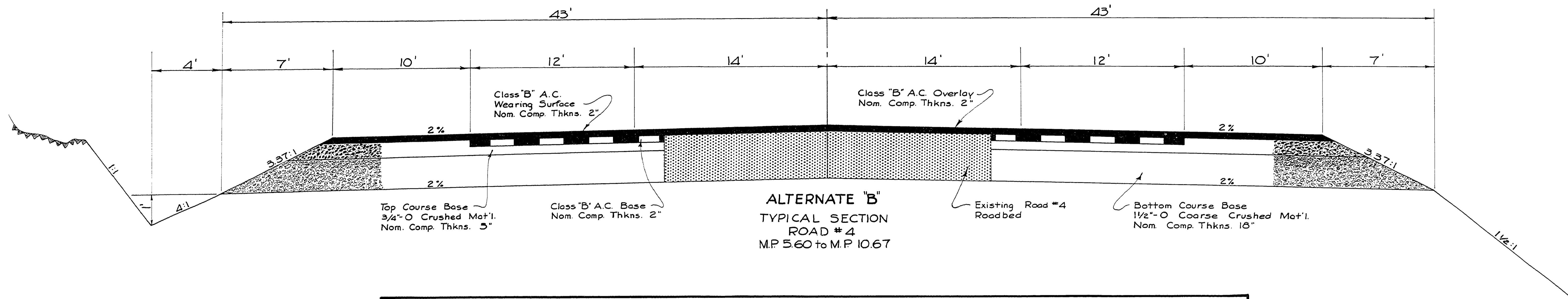
NOT REVISED AS CONSTRUCTED

Douglas County Road Dept.
 NORTH UMPQUA HWY. #4
 Date: April 1970 Sheet 1
 GEORGE E. GRUBB County Engineer

0563107C

Rd. # 4

52



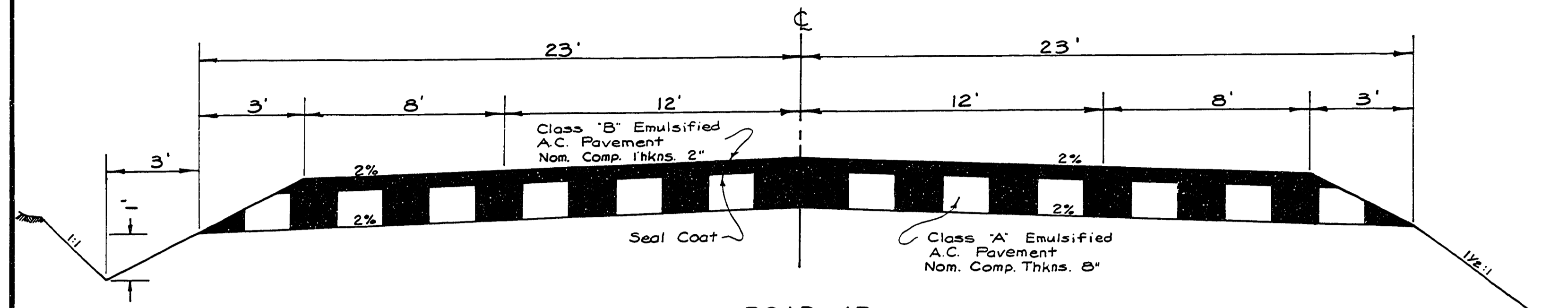
ALTERNATE "B" QUANTITY SUMMARY ROAD # 4				
ITEM	UNIT	QUANTITY	ALLOWANCE	TOTAL
1 CLEARING & GRUBBING	Lump Sum	ALL	-	ALL
2 DITCH EXCAVATION	Cu. Yd.	1,403	147	1,550
3 GENERAL EXCAVATION (UNCLASSIFIED)	Cu. Yd.	138,764	13,876	152,640
4 OVERHAUL	Cu. Yd. Sto.	5,619	561	6,180
5 FINISHING ROADBED & SLOPES	Lump Sum	ALL	-	ALL
6 TRENCH EXCAVATION (UNCLASSIFIED)	Cu. Yd.	962	98	1,060
7 WATERING	M ³ Gal.	5,350	530	5,880
8 OBLITERATE OLD ROADBED	Sto.	1.5	.5	2.0
9 1 1/2\"-O COARSE CRUSHED MAT'L IN BASE	Ton	155,552	15,558	171,110
10 3/4\"-O CRUSHED MAT'L IN BASE	Ton	30,855	3,085	33,940
11 3/4\"-O AGGREGATE IN PRIME COAT	Cu. Yd.	2,591	259	2,850
12 R.C. 250 IN PRIME COAT	Ton	266	29	295
13 R.S. 1 IN TACK COAT	Ton	58	4	62
14 CLASS "B" ASPHALTIC CONCRETE MIXTURE	Ton	33,300	3,330	36,630
15 ASPHALT CEMENT IN MIXTURE	Ton	1,998	202	2,200
16 DRY RIP RAP CLASS ONE	Cu. Yd.	4,270	430	4,700
17 18" CONCRETE CULVERT PIPE	Lin. Ft.	1,306	134	1,440
18 24" CONCRETE CULVERT PIPE	Lin. Ft.	208	22	230
19 36" CONCRETE CULVERT PIPE	Lin. Ft.	216	24	240
20 12" CULVERT PIPE	Lin. Ft.	756	74	830
21 18" CULVERT PIPE	Lin. Ft.	290	30	320
22 36" CULVERT PIPE	Lin. Ft.	40	4	44
23 60" C.M.P. (COATED)	Lin. Ft.	112	12	124
24 72" C.M.P. (COATED)	Lin. Ft.	43	4	52
25 EXTRA FOR A.C. APPROACHES	Each	54	6	60
26 GUIDE POSTS TYPE "W-1"	Each	216	24	240
27 GUIDE POSTS TYPE "Y-1"	Each	14	1	15
28 GUARD RAIL	Lin. Ft.	9,050	910	9,960
29 TYPE 2 BARRICADE	Lin. Ft.	200	20	220
30 RAIL END PIECES	Each	46	4	50
31 GUARD RAIL BLOCKS	Each	873	87	960
32 MAIL BOX STAND (SINGLE)	Each	18	2	20
33 MAIL BOX STAND (MULTIPLE)	Each	8	1	9
34 ROLLER HOURS	Hours	500	50	550

NOT REVISED
AS CONSTRUCTED

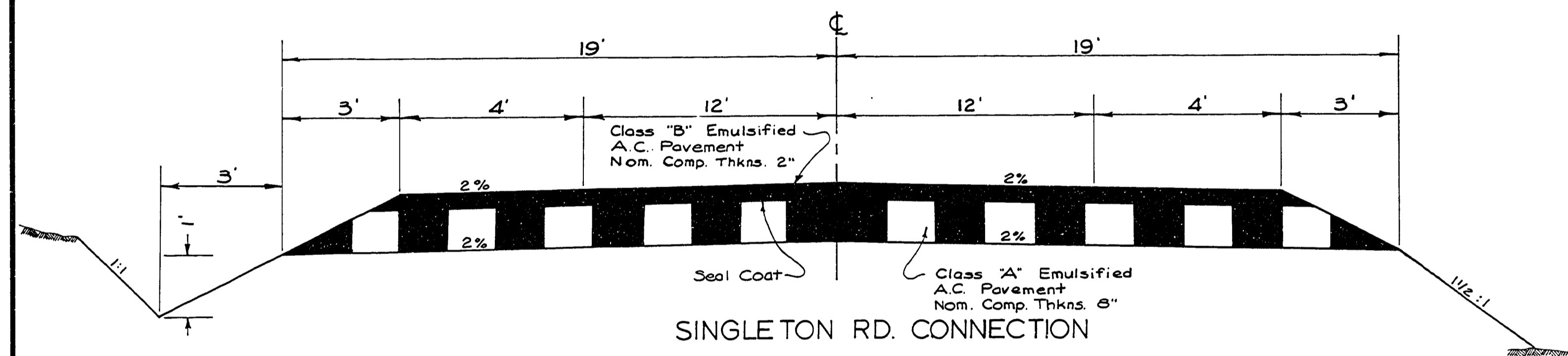
Douglas County Road Dept.
NORTH LIMPQUA HWY # 4
Date: April 1970 Sheet 3
GEORGE E. GRUBB County Engineer

0000SUMM

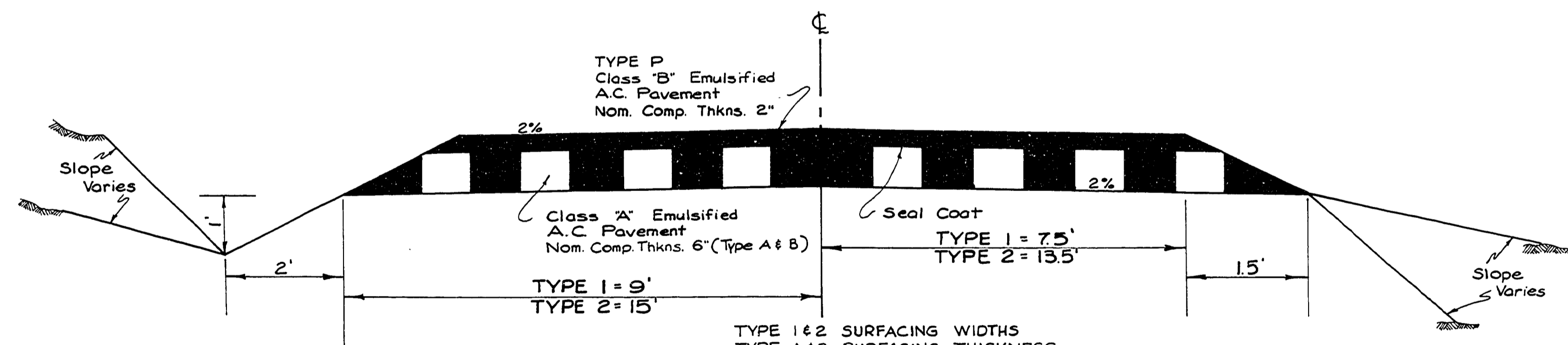
TYPICAL SECTIONS



ROAD 4B
Sta. 0+36.00 to Sta. 4+10.00

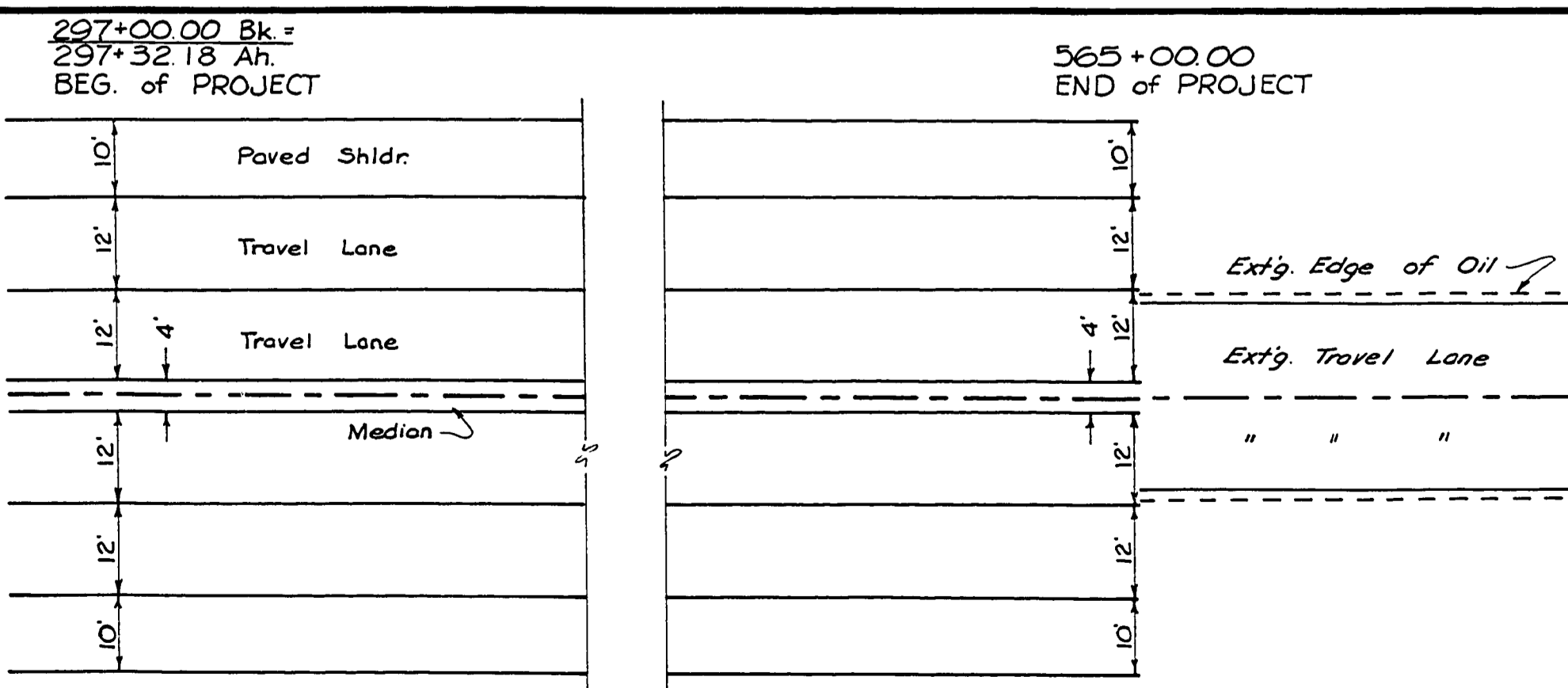


SINGLETON RD. CONNECTION

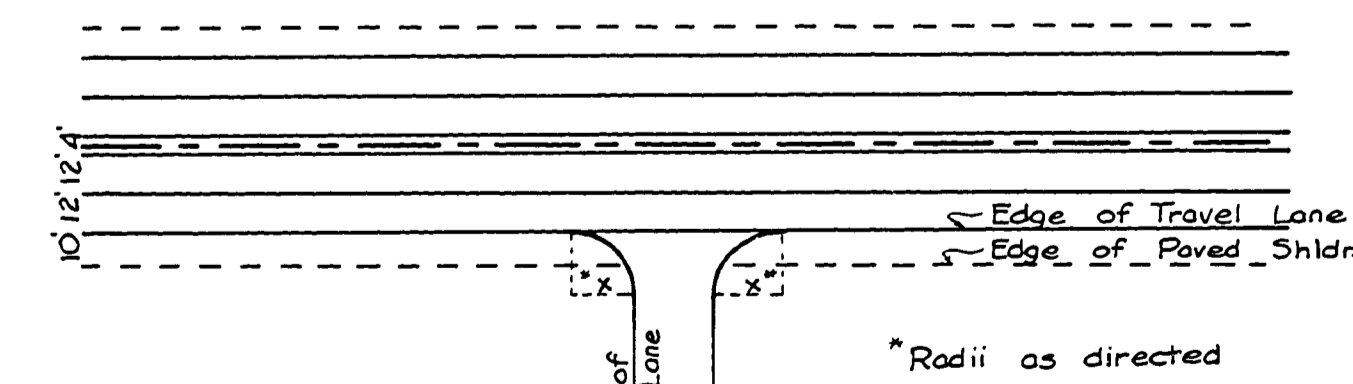


RURAL DRIVEWAY & ROAD APPROACH

TYPE 1 & 2 SURFACING WIDTHS
TYPE A & B SURFACING THICKNESS
TYPE P (P SIGNIFIES PAVING REQUIRED)



WIDTHS FOR ROAD 4



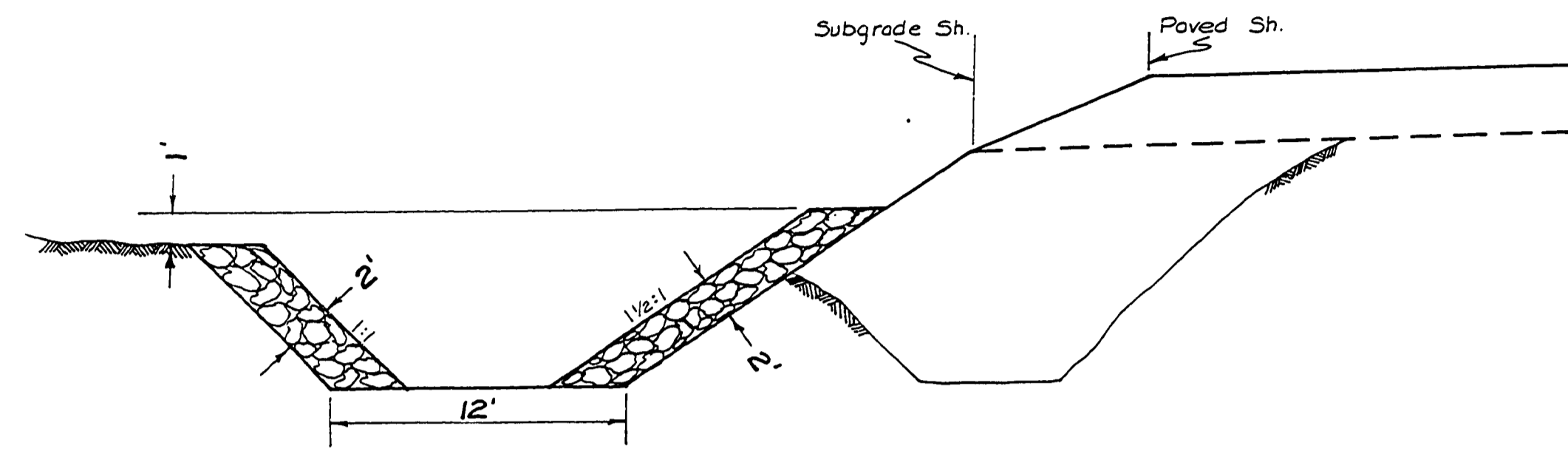
RADIUS PLAN
MINOR ROADS & DRIVEWAYS

NOT REVISED
AS CONSTRUCTED

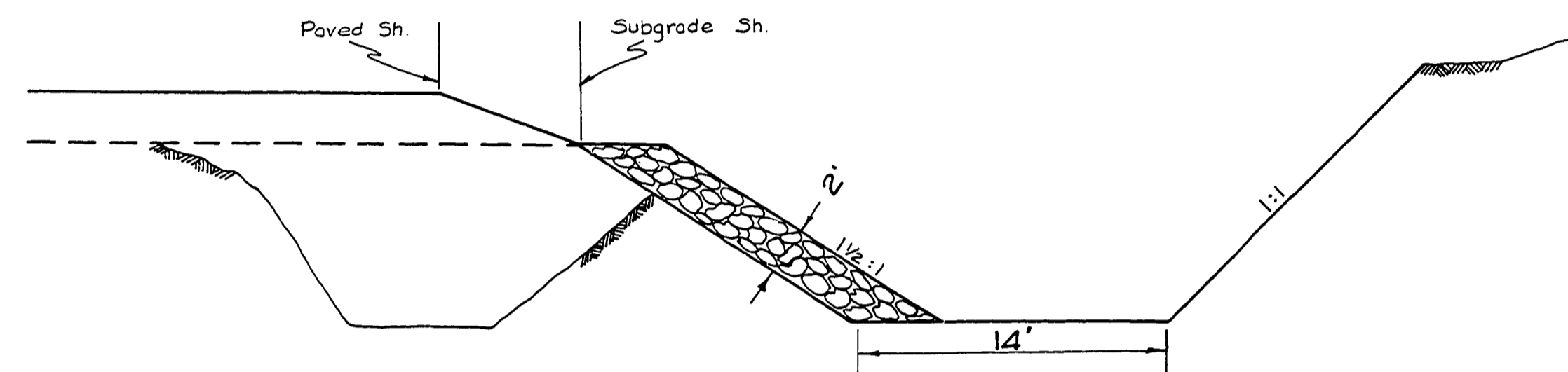
Douglas County Road Dept.
NORTH UMPQUA HWY. # 4
Date: April 1970 Sheet 4
GEORGE E. GRUBB County Engineer

0000DRWY

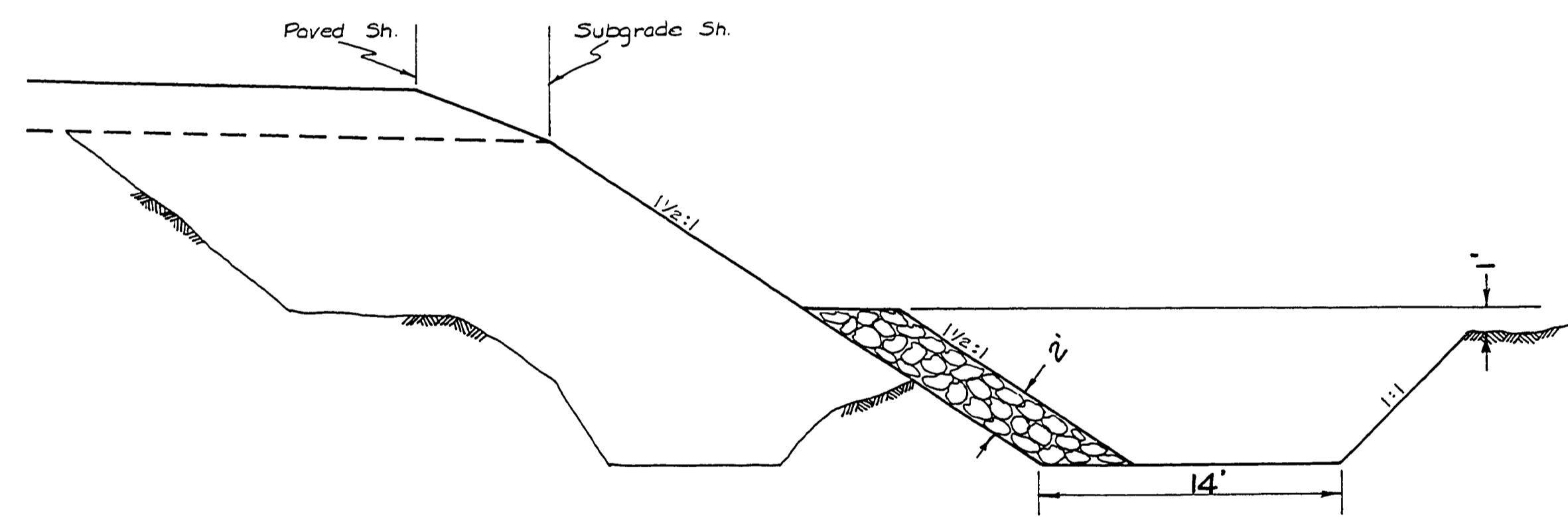
TYPICAL SECTIONS
CHANNEL CHANGES
Placement of Dry Riprap Class I



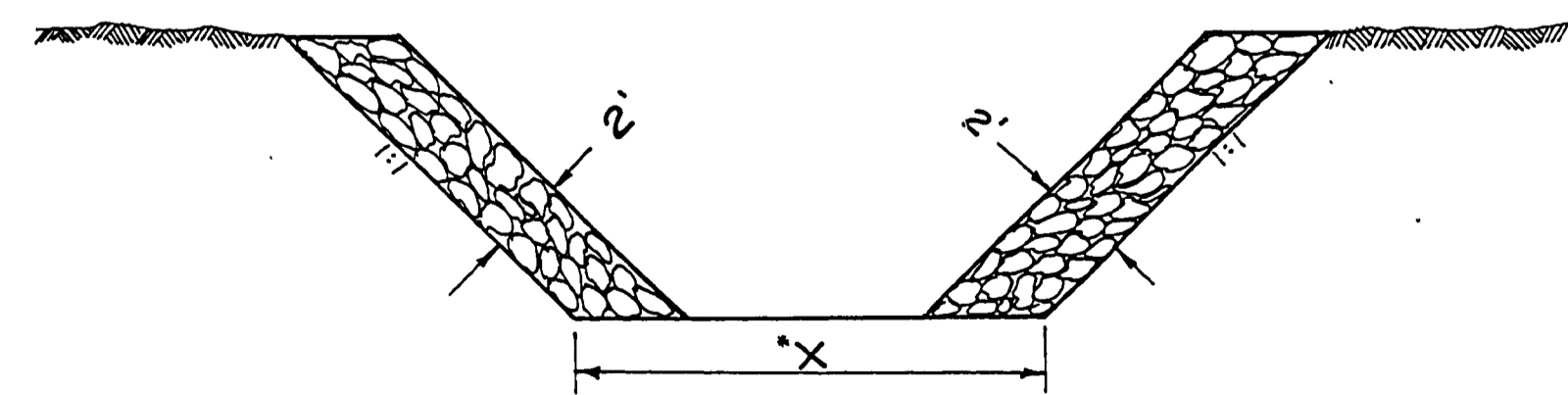
Sta. 356+25 to Sta. 360+75



Sta. 475+00 to Sta. 493+50



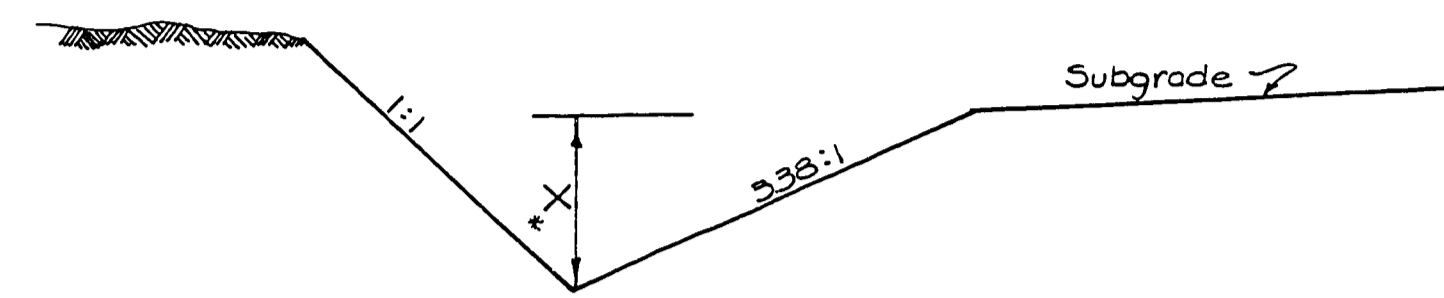
Sta. 509+75 to Sta. 524+50



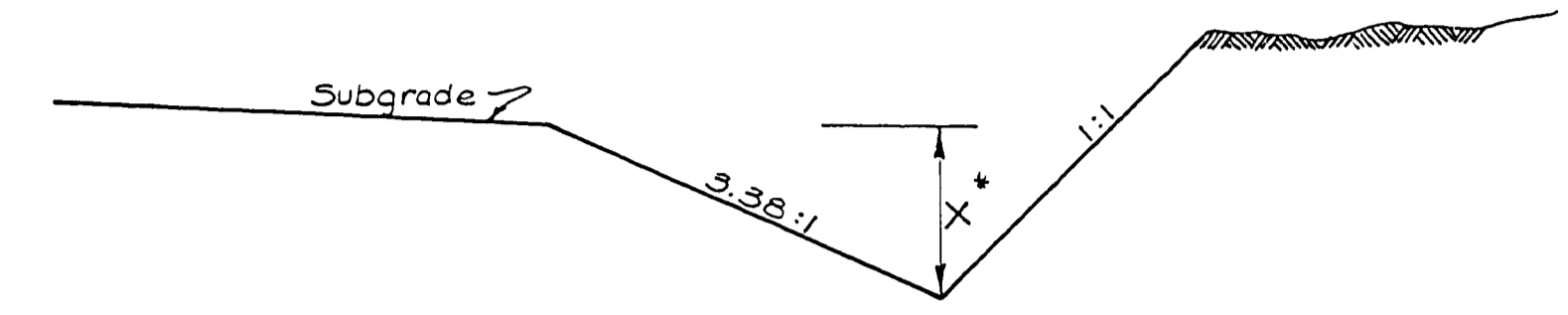
Box Culvert Inlet & Outlet Channels
*X = Box culvert width + 6'

Stations - 298+80 & 524+50

TYPICAL SECTION
Variable ditch in cut area
*X = Variable

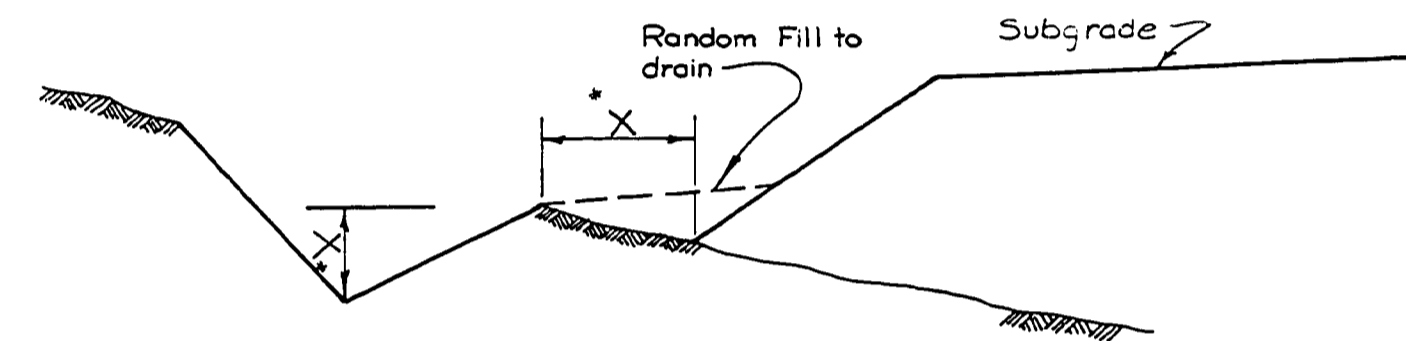


Sta. 298+00 to Sta. 299+00
" 503+75 " " 506+00

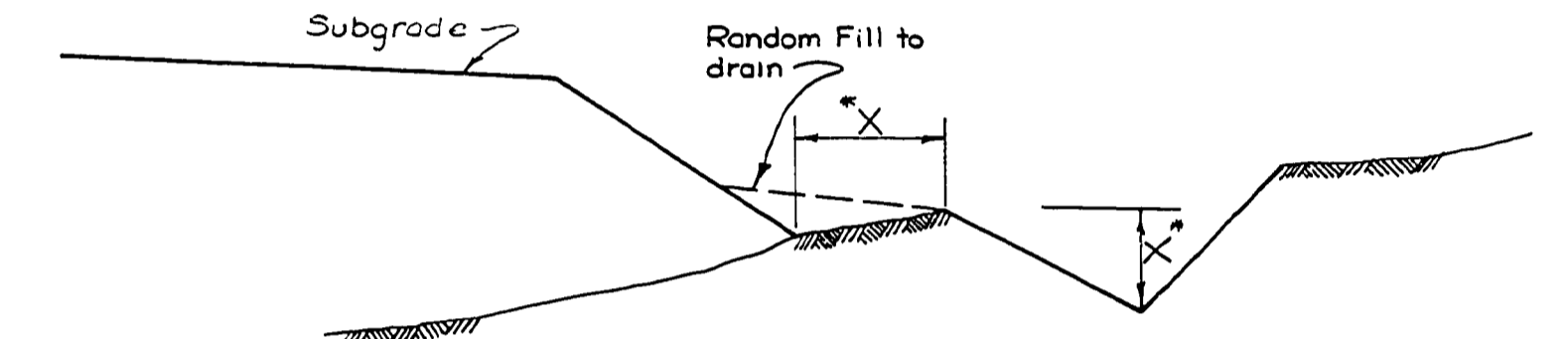


Sta. 559+00 to Sta. 559+90

TYPICAL SECTION
Variable ditch in emb. area
*X = Variable



Sta. 315+40 to Sta. 317+32
" 360+60 " " 383+50
" 399+50 " " 400+75
" 424+50 " " 431+50
" 435+00 " " 437+50
" 439+00 " " 440+50
" 457+00 " " 464+50
" 470+00 " " 483+50
" 497+00 " " 498+00
" 550+50 " " 552+50
" 562+25 " " 565+00



Sta. 362+00 to Sta. 374+75
" 402+25 " " 404+30
" 527+90 " " 530+60
" 531+00 " " 532+25
" 552+60 " " 557+00

NOT REVISED
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY #4
Date: April 1970 Sheet 5
GEORGE E. GRUBB County Engineer

0000DITC

Rd. # 4

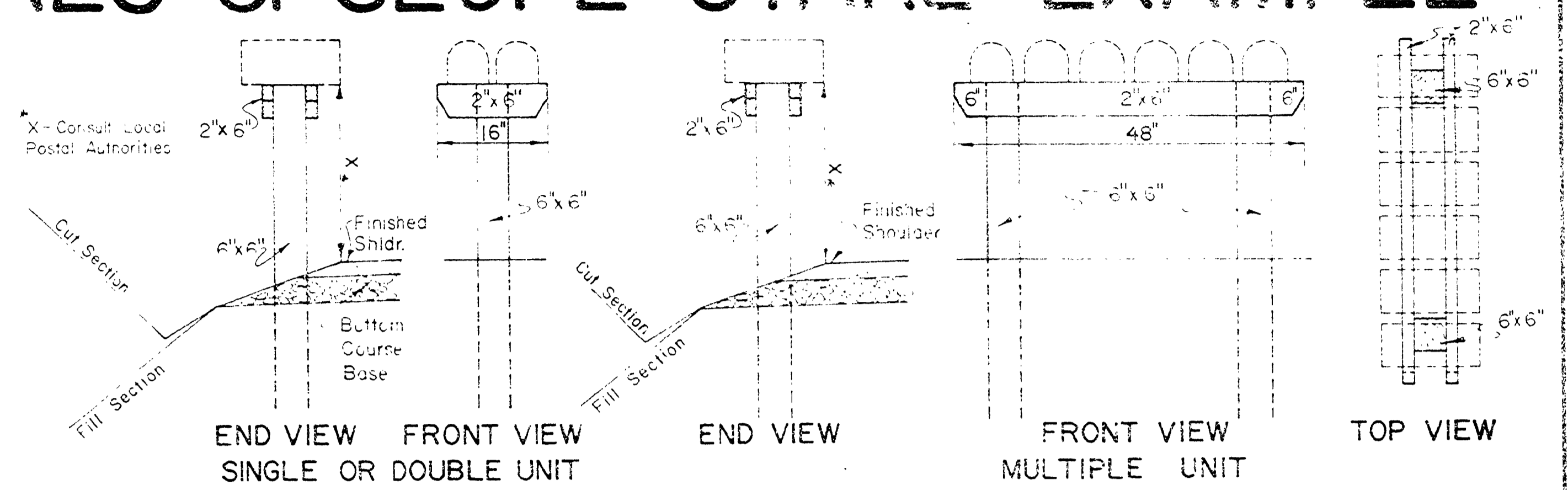
APRIL 1970 SHEET 5 OF 17

60

PIPE LIST, MAIL BOX STAND, DRIVEWAY TYPICALS & SLOPE STAKE EXAMPLE

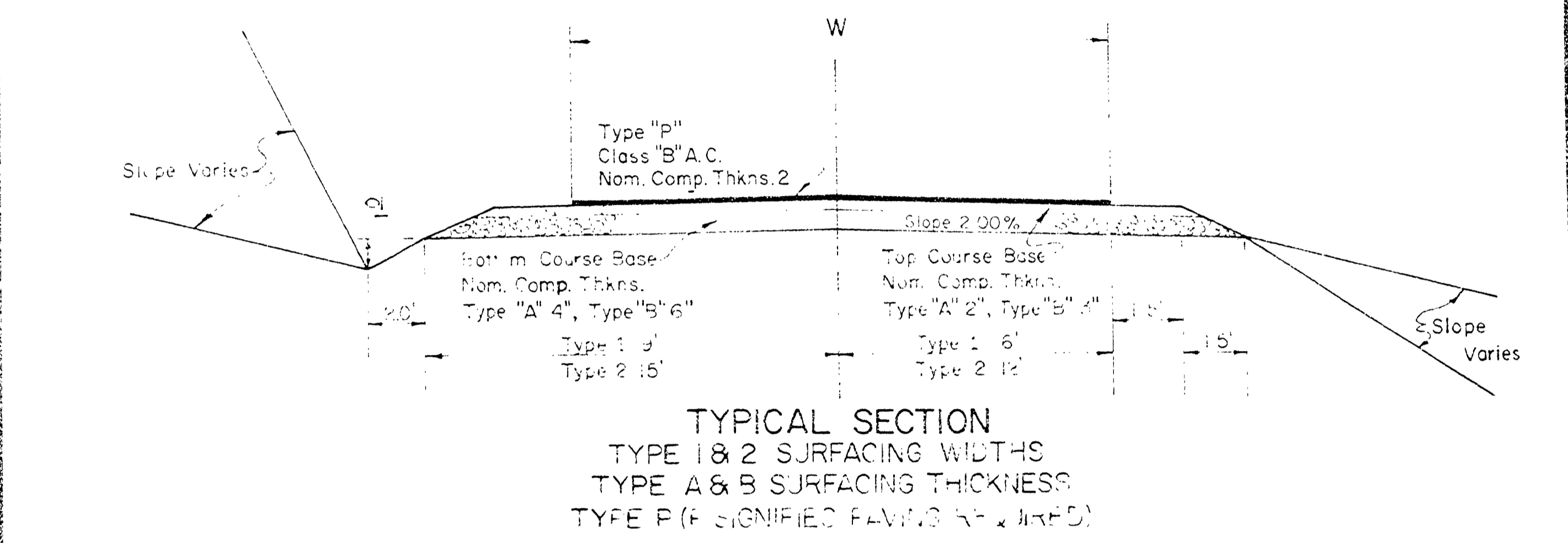
STATION	DIAMETER	LENGTH	PIPE LIST					TRENCH EXC. CU. YDS.	REMARKS STRUTTED END TREATMENT, IMPERFECT TRENCH ETC.	
			ALUMINUM			GALV. STEEL				CONCRETE
			ANNULAR CORR. GAGE	HELICAL CORR.	ASPHALT COATED	ANNULAR CORR. GAGE	HELICAL CORR. ASPHALT COATED			CLASS III V Conc. Pipe thru 18" may be unreinforced if strength meets class III bearing requirements.
298+90	18"	60'					✓	12		
304+30	12"	66'				16/16 ✓	✓	2		
304+35	12"	24'				16/16 ✓	✓	1		
307+95	12"	24'				16/16 ✓	✓	1		
309+20	12"	40'				16/16 ✓	✓	2		
310+10	12"	24'				16/16 ✓	✓	1		
315+40	18"	102'					✓	43		
317+32	18"	112'					✓	62		
333+76	18"	108'					✓	55		
339+19	18"	104'					✓	42		
342+06	18"	108'					✓	45		
345+10	12"	24'				16/16 ✓	✓	1		
349+37	18"	102'					✓	42		
356+93	18"	102'					✓	42		
359+90	72"	48'				10 ✓	✓	8	Sloped Ends	
360+52	18"	102'					✓	53		
361+20	18"	24'				16/16 ✓	✓	2		
367+85	24"	100'					✓	45		
370+10	18"	40'				16/16 ✓	✓	3		
377+20	18"	40'				16/16 ✓	✓	3		
387+25	18"	42'					✓	15		
387+25	12"	24'				16/16 ✓	✓	1		
403+70	12"	24'				16/16 ✓	✓	1		
404+26	12"	64'					✓	24		
404+95	12"	60'				16/16 ✓	✓	4		
412+25	12"	24'				16/16 ✓	✓	1		
413+75	18"	104'					✓	61		
415+00	12"	24'				16/16 ✓	✓	1		
431+55	18"	46'					✓	4		
434+15	12"	40'				16/16 ✓	✓	2		
444+35	18"	24'				16/16 ✓	✓	2		
447+10	12"	24'				16/16 ✓	✓	1		
450+45	18"	42'					✓	3		
453+50	12"	24'				16/16 ✓	✓	1		
463+00	18"	24'				16/16 ✓	✓	2		
463+00	12"	40'				16/16 ✓	✓	2		
464+61	36"	56'					✓	12		
470+00	12"	40'				16/16 ✓	✓	2		
470+00	12"	24'				16/16 ✓	✓	1		
477+25	18"	40'				16/16 ✓	✓	3		
480+63	24"	108'					✓	65		
483+75	18"	40'				16/16 ✓	✓	3		
487+00	36"	56'					✓	5		
488+40	12"	24'				16/16 ✓	✓	1		
494+35	12"	40'				16/16 ✓	✓	2		
495+55	12"	24'				16/16 ✓	✓	1		
503+00	12"	24'				16/16 ✓	✓	1		
503+74	36"	104'					✓	61		

NOTE: PIPE LENGTHS & LOCATIONS TO BE VERIFIED IN FIELD.

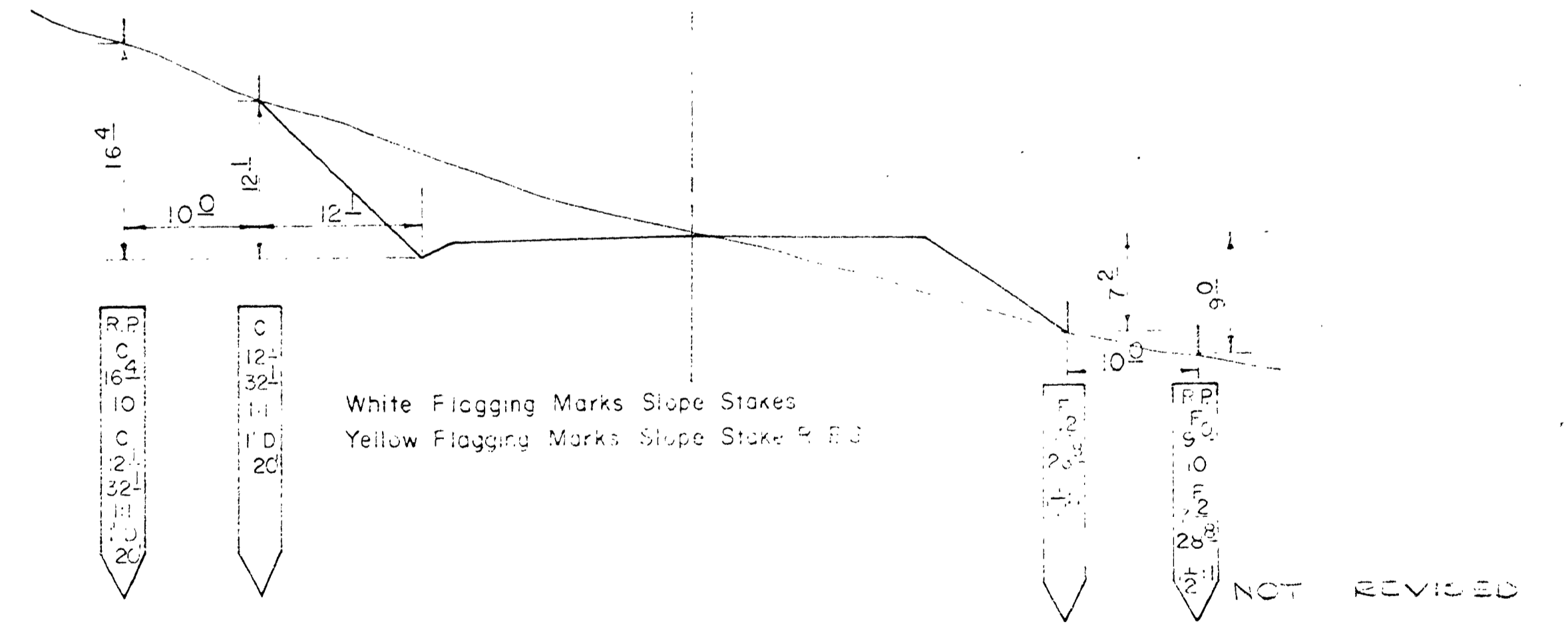


NOTE: All Posts to be of Cedar, Posts to be Set a Minimum of 24" Below the Surface of the Ground.

TYPICAL MAIL BOX STAND



RURAL DRIVEWAY & ROAD APPROACH STANDARD



SLOPE STAKE EXAMPLE

TYPICAL MARKING BACK OF STAKE.

AS CONSTRUCTED

JOB NAME	North Unionville Hwy
JOB NUMBER	Road #4
DATE	April 1970
Douglas County Road Dept.	
PIPE LIST, MAIL BOX STAND RURAL DRIVEWAY & SLOPE STAKE EX.	
Date: May 1969 Std. Dwng. 1	

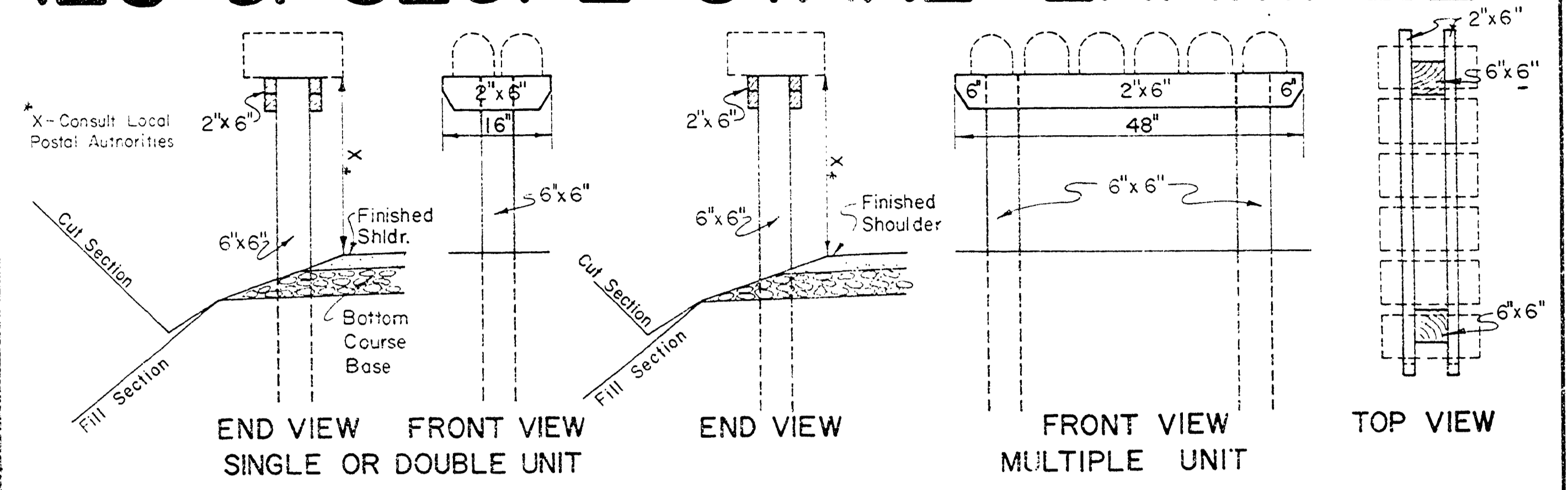
0000SLOP

Rd #4

PIPE LIST, MAIL BOX STAND, DRIVEWAY TYPICALS & SLOPE STAKE EXAMPLE

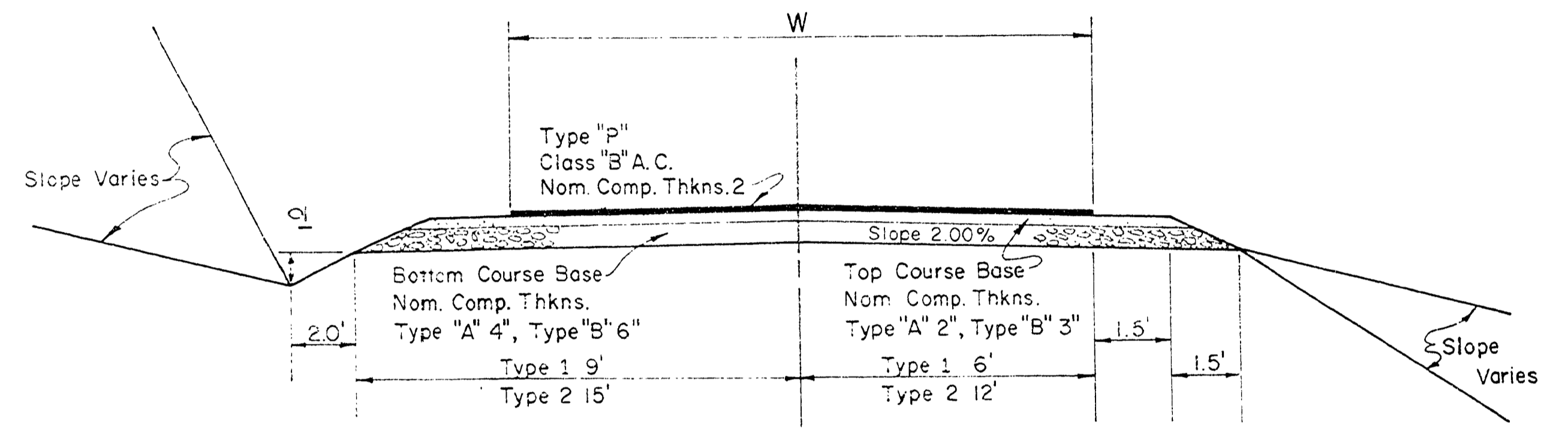
STATION	DIAMETER	LENGTH	PIPE LIST					TRENCH EXC. CU. YDS.	REMARKS	
			ALUMINUM			GALV. STEEL				CONCRETE
			ANNULAR CORR. GAGE	HELICAL CORR.	ASPHALT COATED	ANNULAR CORR. GAGE	HELICAL CORR. ASPHALT COATED			CLASS III V Conc. Pipe thru 18" may be un-reinforced if strength meets class III bearing requirements
514+74	18"	108'				✓	60	Slanted Ends		
527+87	60"	112'				✓	156			
530+80	12"	40'		10	✓	✓	2			
534+50	12"	40'		16 16	✓	✓	2			
547+75	12"	24'		16 16	✓	✓	1			
554+00	18"	24'		16 16	✓	✓	2			
561+70	36"	40'		14 14	✓	✓	4			
564+23	18"	34'		16 16	✓	✓	2			

NOTE: PIPE LENGTHS & LOCATIONS TO BE VERIFIED IN FIELD.



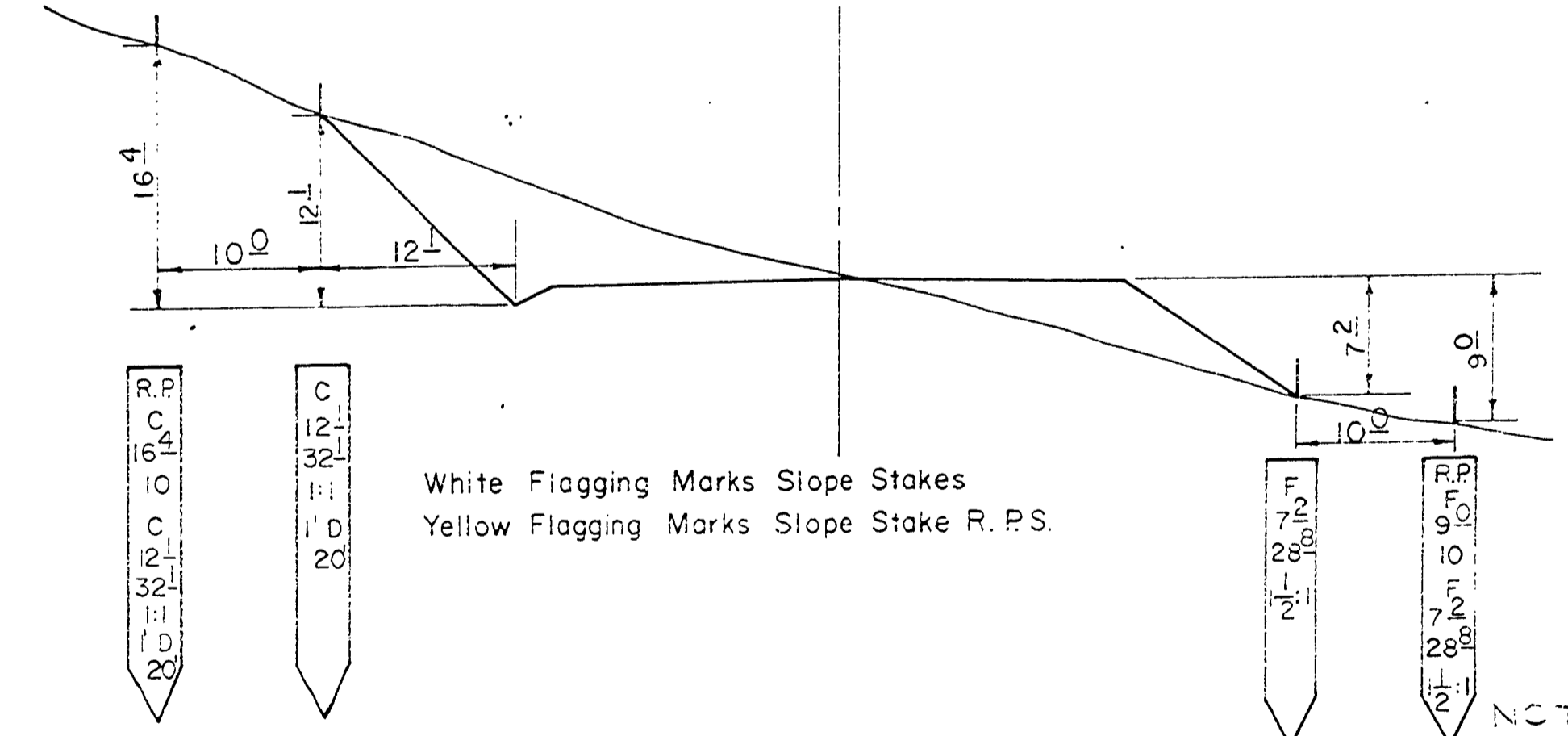
NOTE: All Posts to be of Cedar, Posts to be Set a Minimum of 24" Below the Surface of the Ground.

TYPICAL MAIL BOX STAND



TYPICAL SECTION
TYPE 1 & 2 SURFACING WIDTHS
TYPE A & B SURFACING THICKNESS
TYPE P (F SIGNIFIES PAVING REQUIRED)

RURAL DRIVEWAY & ROAD APPROACH STANDARD



SLOPE STAKE EXAMPLE

TYPICAL MARKING BACK OF STAKE.

AS CONSTRUCTED

JOB NAME	North Virginia Hwy
JOB NUMBER	PL#4
DATE	April 1970
Douglas County Road Dept.	
PIPE LIST, MAIL BOX STAND RURAL DRIVEWAY & SLOPE STAKE EX.	
Date: May 1969 Std. Dwng. 1	

0000MAIL

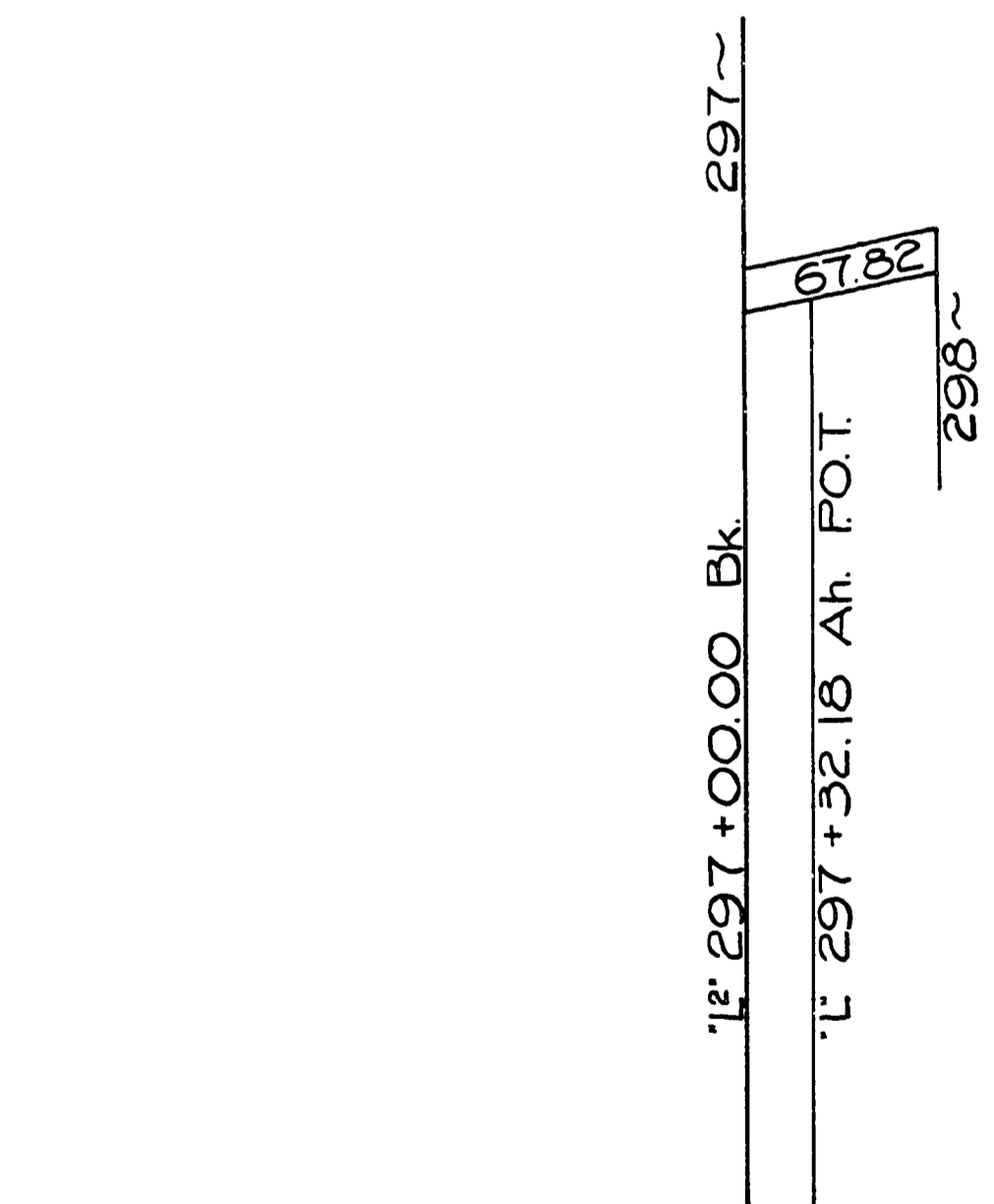
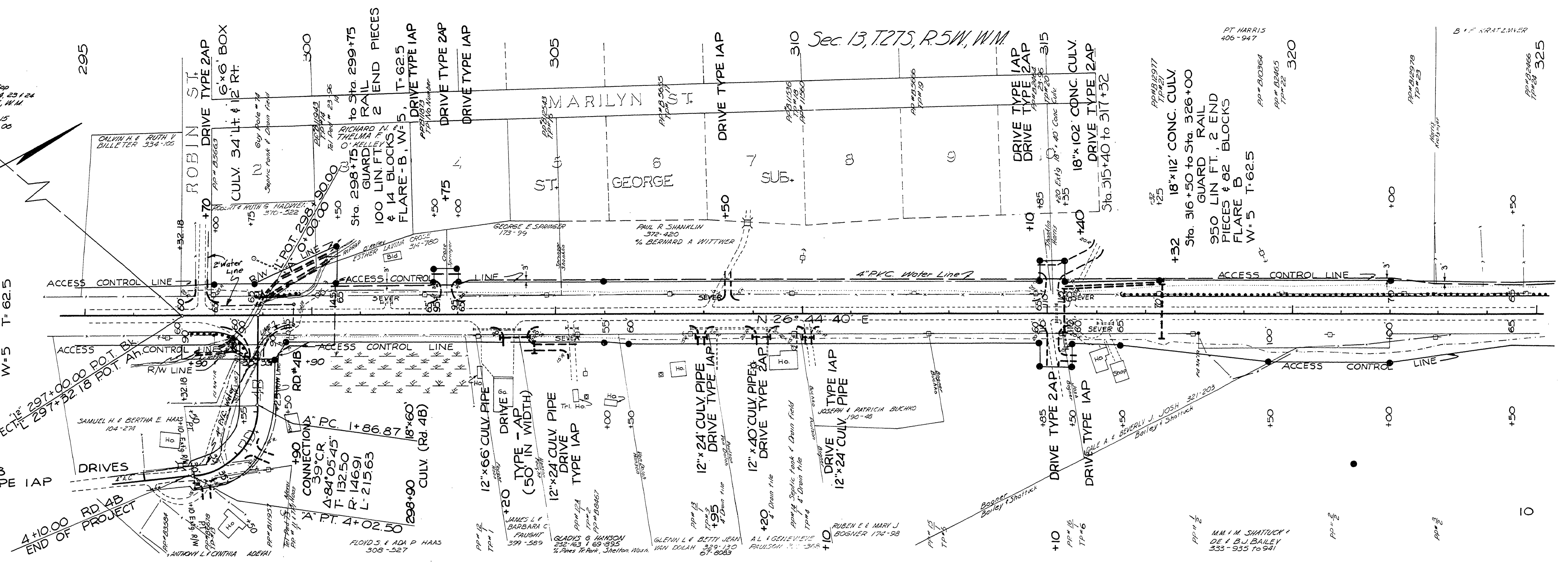
PL #4

Sec. 13, T.27S, R.5W, W.M.

Fd. Cross Cap
Sec. Cor. 13, 14, 23 & 24
T.27S, R.5W, W.M.
Coords
N 20,330.15
E 42,789.00

Sta. 297+50 to 298+65
GUARD RAIL
125 LIN. FT., 2 END
PIECES, 20 BLOCKS
FLARE B
W=5 T=62.5

Coords for
Begin of Proj.
N 21,120.61
E 44,322.08



295

300

305

310

315

320

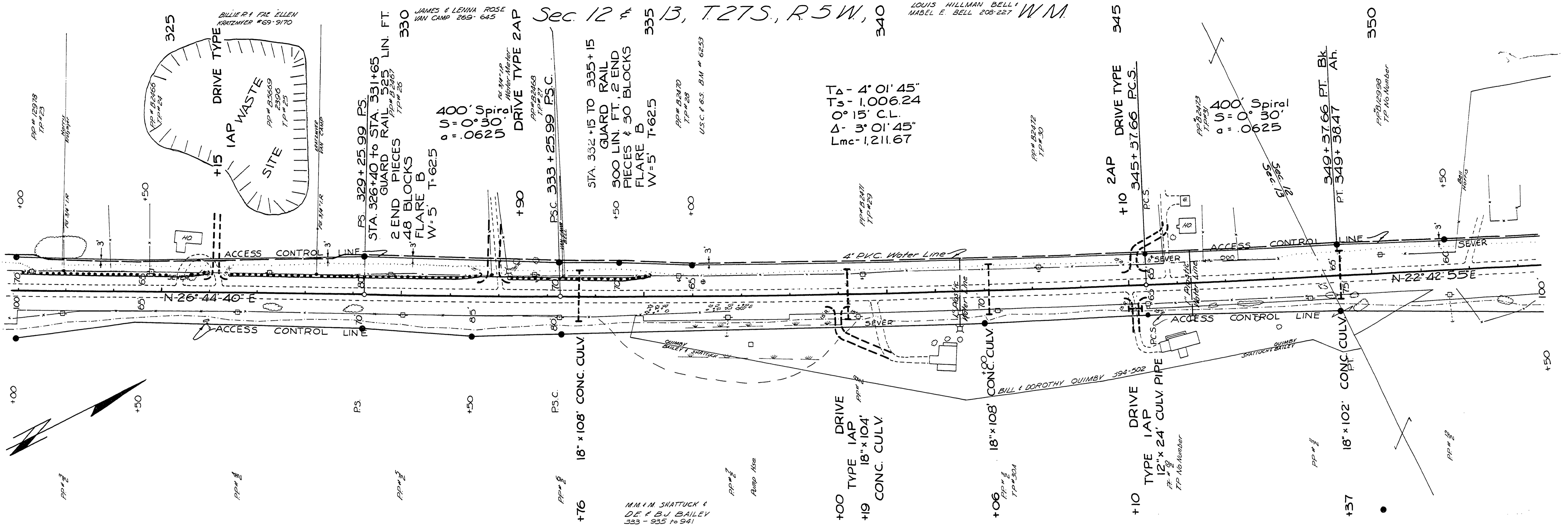
NOT REBUILT
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY. #4
Date: April 1970 Sheet 8
GEORGE E. GRUBB County Engineer

05720628

M.P. 572-6.08

Pl. # 4



Sec. 12 & 13, T.27S., R.5W., W.M.

$T_\Delta = 4^\circ 01' 45''$
 $T_u = 1.00624$
 $O = 15' C.F.$
 $\Delta = 3^\circ 01' 45''$
 $L_m = 1,211.67$

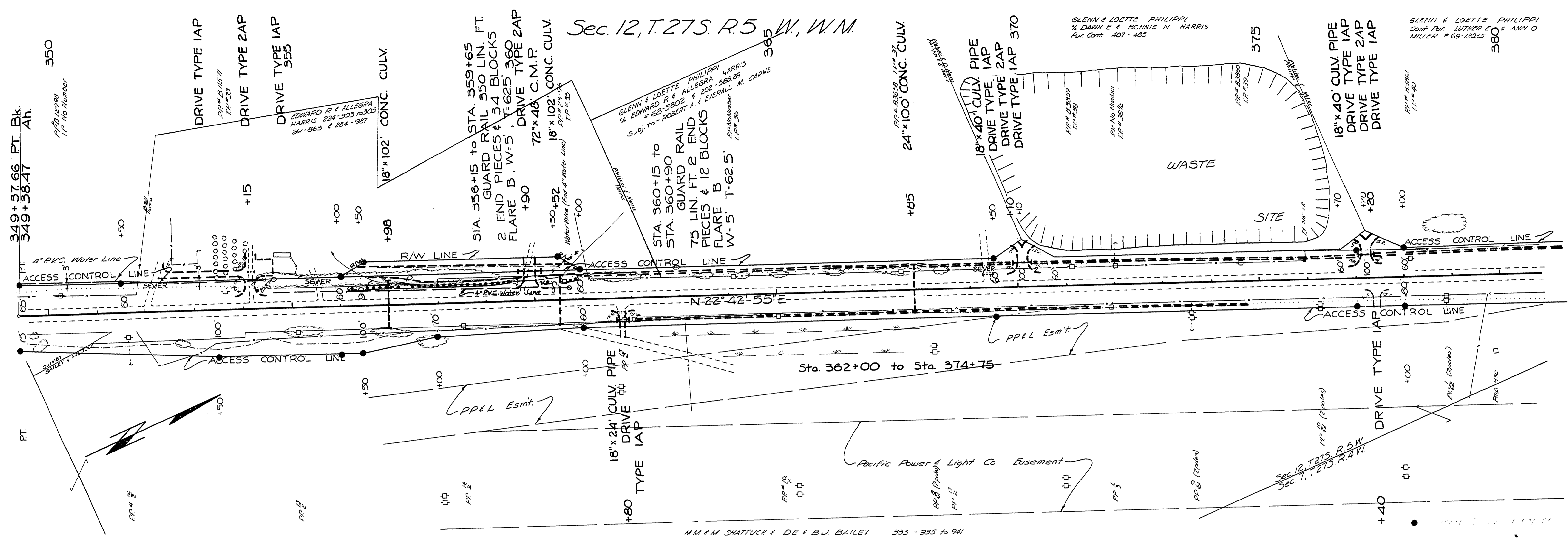
NOT REVISED
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY. #4
Date: April 1970 Sheet 9
GEORGE E. GRUBB County Engineer

06280681

M.P. 6.28 - 6.81

Pl. # 4



Sec. 12, T. 27S. R. 5 W., W.M.

NOT REVISION
AS CONSTRUCTED

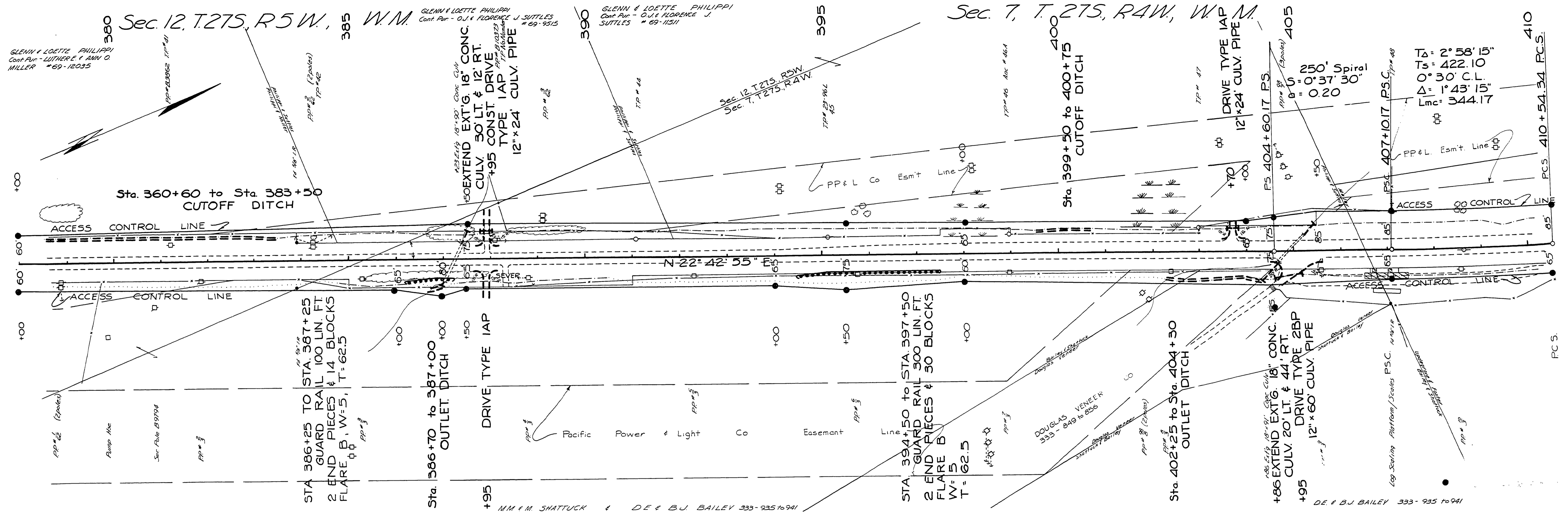
Douglas County Road Dept
NORTH UMPQUA HWY. #4
Date: April 1970 Sheet 10
GEORGE E. GRUBB County Engineer

06810732

M.P. 681-7.32

R.V. #4

65



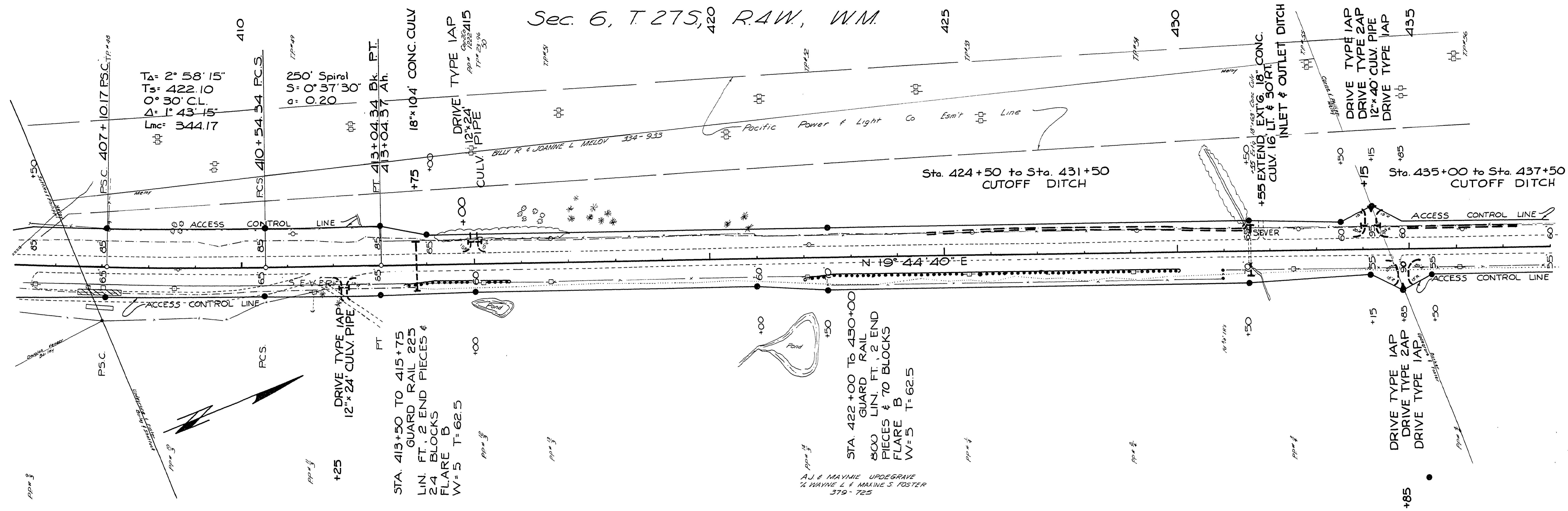
NOT REVISION
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY #4
Date: April 1970 Sheet 11
GEORGE E. GRUBB County Engineer

07320789



Sec. 6, T. 275, R. 4W, W.M.



$T_A = 2^\circ 58' 15''$
 $T_S = 422.10$
 $O = 30' C.L.$
 $\Delta = 1' 43' 15''$
 $L_{mc} = 344.17$

$17P=49$
 $250' Sp$
 $0' 0' 37' 30''$
 $a = 0.20$

+25
 DRIVE TYPE IAP
 12" x 24' CULV. PIPE

STA. 413+50 TO 415+75
 GUARD RAIL 225
 LIN. FT. 2 END PIECES &
 24 BLOCKS
 FLARE B
 W=5 T=62.5

+75
 18" x 10' CONC. CULV.
 DRIVE TYPE IAP
 12" x 24' CULV. PIPE

STA. 422+00 TO 430+00
 GUARD RAIL
 800 LIN. FT. 2 END
 PIECES & 70 BLOCKS
 FLARE B
 W=5 T=62.5

NOT REVISED
 AS CONSTRUCTED

Douglas County Road Dept.
 NORTH UMPQUA HWY. #4
 Date: April 1970 Sheet 12
 GEORGE E. GRUBB County Engineer

07890842

465

M. NELSON, S. BARKER, & C. BARKER
Est. # 5156 V 336 P 95

MARY NELSON, SOPHROVIA BARKER & CURTIS P. BARKER
Est. # 5156 V 336 P 95

DRIVE TYPE IAP
12" x 40' CULV PIPE
470

DRIVE IAP
TYPE IAP
12" x 24' CULV
PIPE

STA. 474+50 TO STA. 494+00
GUARD RAIL 1950 LIN. FT.
2 END PIECES & 162 BLOCKS
FLARE B
W=5
T=62.5

Sta. 470+00 to Sta. 483+50
CUTOFF DITCH

Sec. 31, T. 265, R. 4 W., W.M.

400' Spiral
S: 2° 00'
e: 0.25

DRIVE TYPE IAP Lt.
DRIVE TYPE 2AP Lt.
18" x 40' CULV PIPE Lt.
DRIVE TYPE IAP Lt.

M.P. 2.00 - 9.50

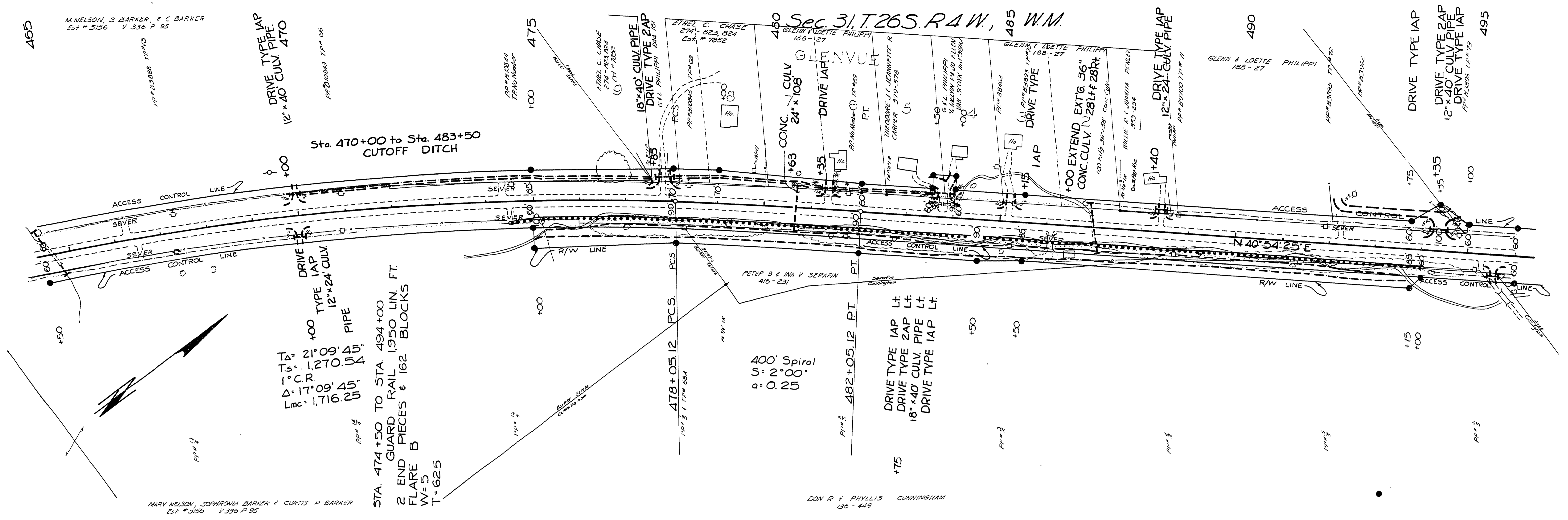
PL # 4

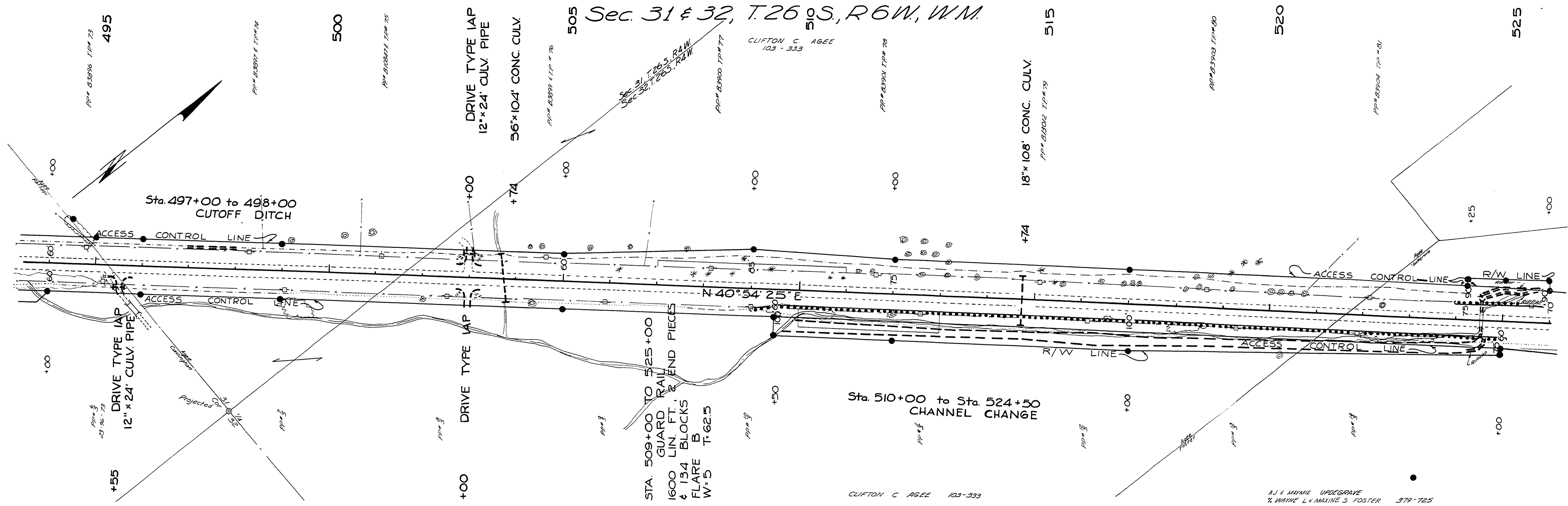
APRIL 1970 14 OF 17

NOT REVISIONS
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY. # 4
Date: April 1970 Sheet 14
GEORGE E. GRUBB County Engineer

08950952





Sec. 31 & 32, T.26 S., R.6 W., W.M.

NOT REVISED
AS CONSTRUCTED

Douglas County Road Dept.
NORTH UMPQUA HWY. #4
Date: April 1970 Sheet 15
GEORGE E. GRUBB County Engineer

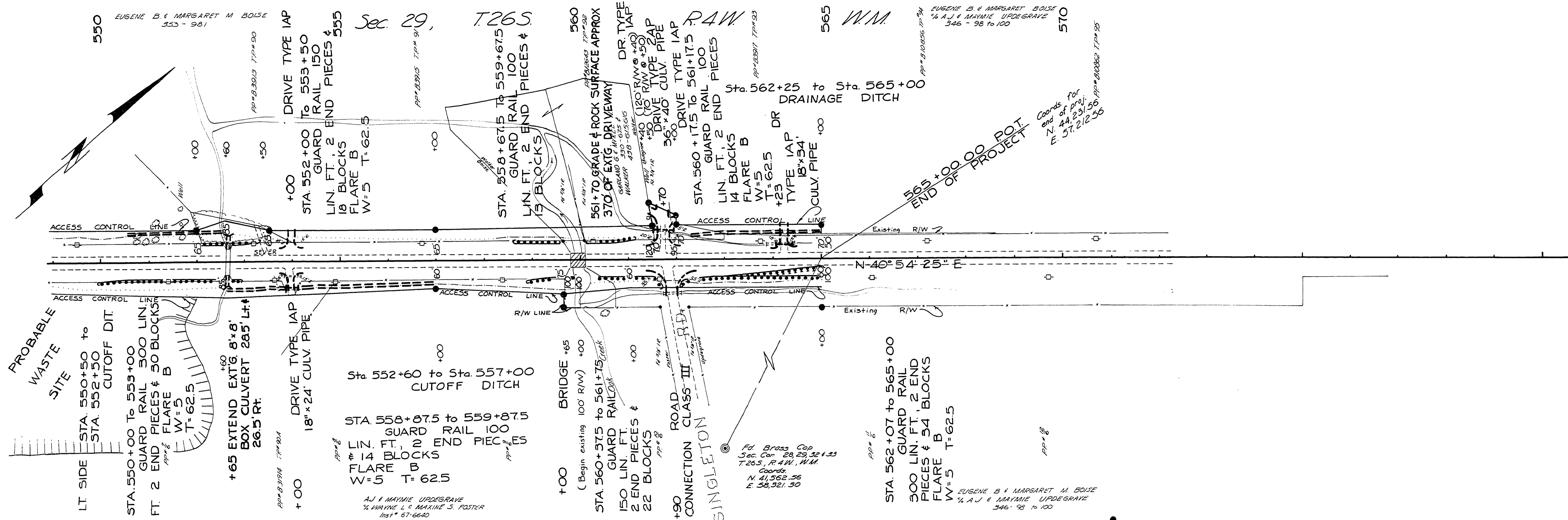
09521009

M.P. 9.52-10.09

R.I. # 4 APRIL 1970 15 OF 17

35

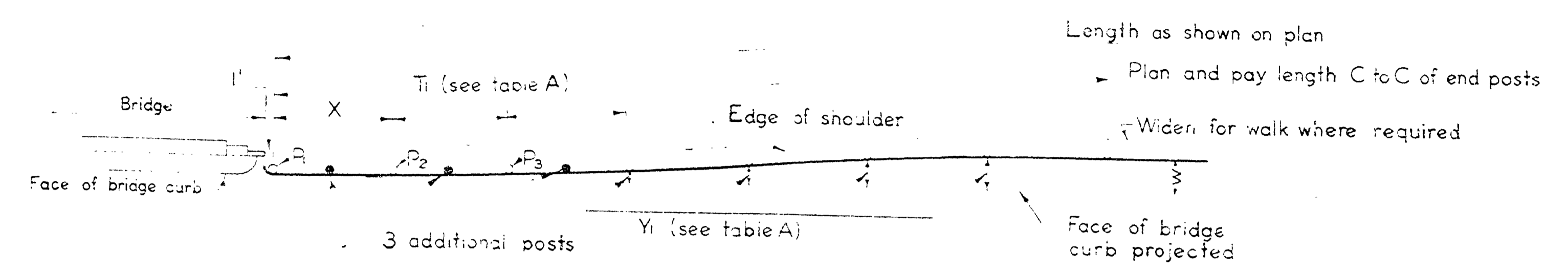
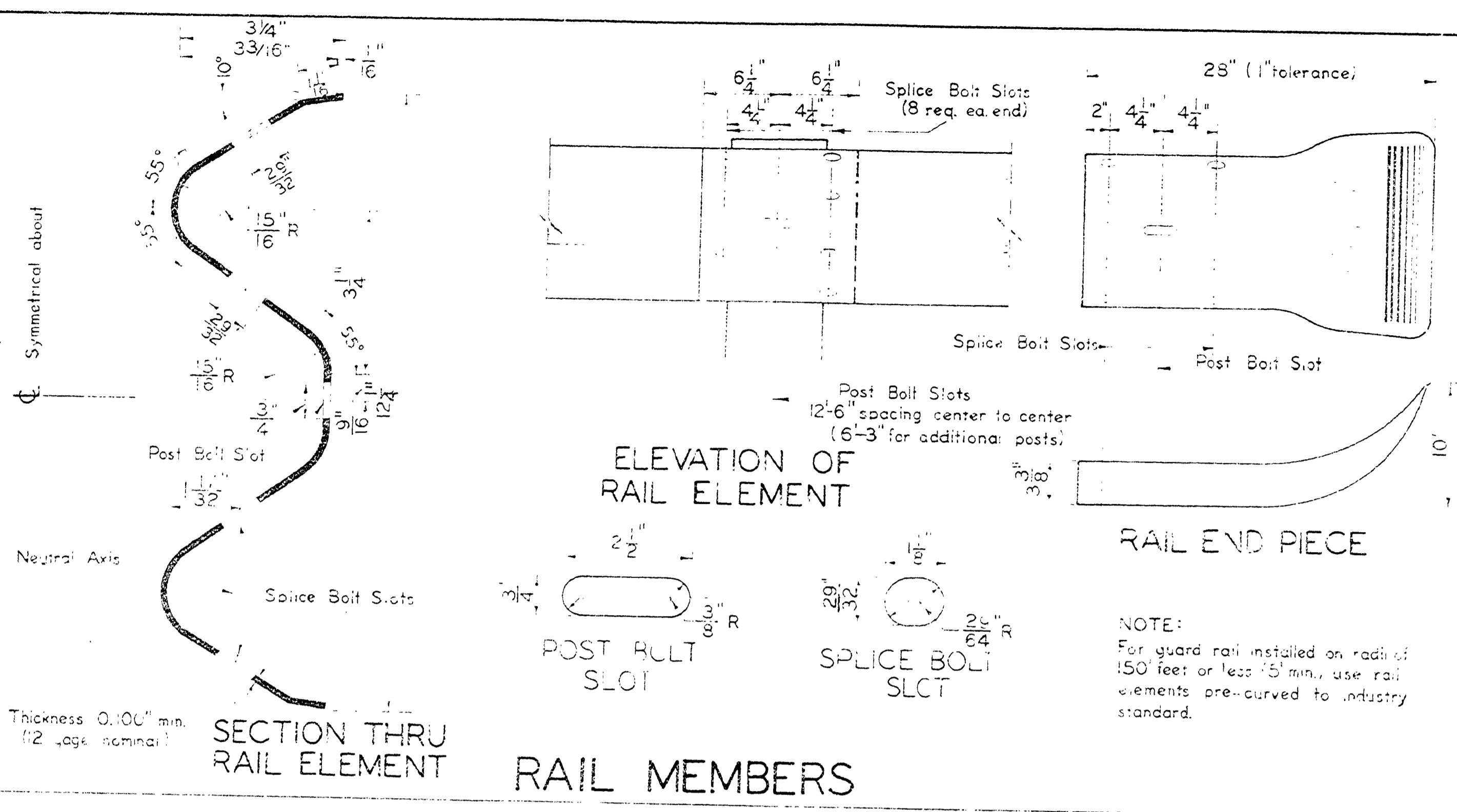




NOT REVISED
AS CONSTRUCTED

Douglas County Road Dept
NORTH UMPQUA HWY #4
Date: April 1970 Sheet 17
GEORGE E. GRUBB County Engineer

10581083



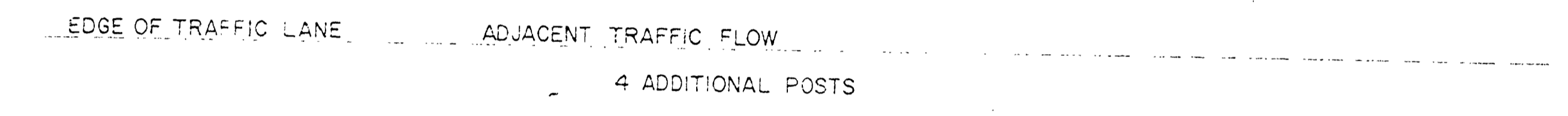
FLARE A
FOR MATCHING FACE OF BRIDGE CURB

TABLE A

POST	W in feet								X feet
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	
P ₁	0	0	0	0	0	0	0	0	0
P ₂	0.22	0.25	0.24	0.22	0.20	0.19	0.22	0.25	0.28
P ₃	0.76	1.00	0.96	0.89	0.82	0.75	0.88	1.00	1.13
P ₄	1.00	1.75	2.04	2.00	1.84	1.69	1.97	2.25	2.53
P ₅		2.00	2.76	3.11	3.16	3.00	3.50	4.00	4.50
P ₆			3.00	3.75	4.16	4.31	5.03	6.25	7.03
P ₇				4.00	4.80	5.25	6.16	7.50	8.75
P ₈					5.00	5.81	6.78	8.75	10.00
P ₉						6.00	7.00	10.00	11.00
T in feet									
	3.75	5.00	6.25	7.50	8.75	10.00			

Post spacing 12'-6" O.C., except as directed otherwise.
Lap rail in direction of adjacent traffic flow, except end pieces.

When matching bridge, face of rail to line up with face of bridge curb



FLARE B

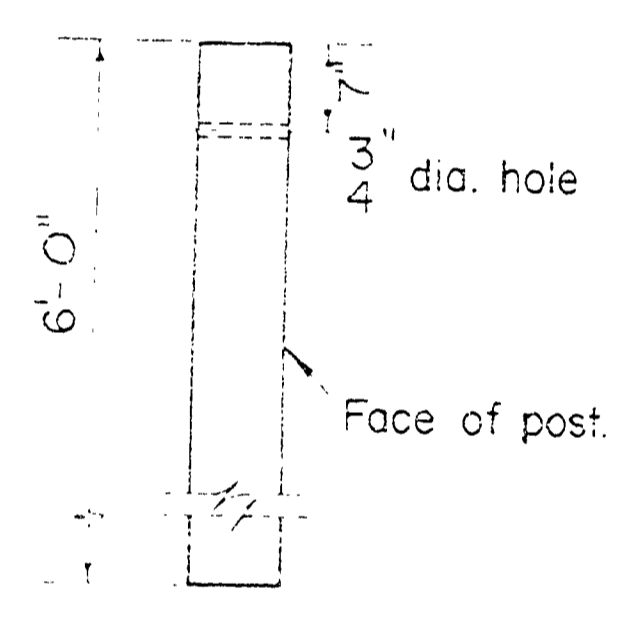
TABLE B

POST	W in feet											X feet
	4.00	5.00	6.00	7.00	8.00	9.00	10.00	12.00	14.00	16.00	18.00	
P ₁	0	0	0	0	0	0	0	0	0	0	0	0
P ₂	0.25	0.20	0.17	0.14	0.12	0.14	0.16	0.19	0.22	0.25	0.28	0.31
P ₃	1.00	0.80	0.67	0.57	0.50	0.56	0.63	0.75	0.88	1.00	1.13	1.25
P ₄	2.25	1.80	1.50	1.29	1.13	1.27	1.41	1.69	1.97	2.25	2.53	2.75
P ₅	4.00	3.20	2.67	2.29	2.00	2.25	2.50	3.00	3.50	4.00	4.50	5.00
P ₆		5.00	4.18	3.58	3.13	3.52	3.91	4.69	5.47	6.25	7.03	7.75
P ₇			6.00	5.15	4.50	5.06	5.63	6.75	7.88	9.00	10.13	11.25
P ₈				7.00	6.13	6.89	7.66	9.19	10.72	12.25	13.78	15.25
P ₉					8.00	9.00	10.00	12.00	14.00	16.00	18.00	20.00
T in feet												
	5.0	6.25	7.5					10.0				

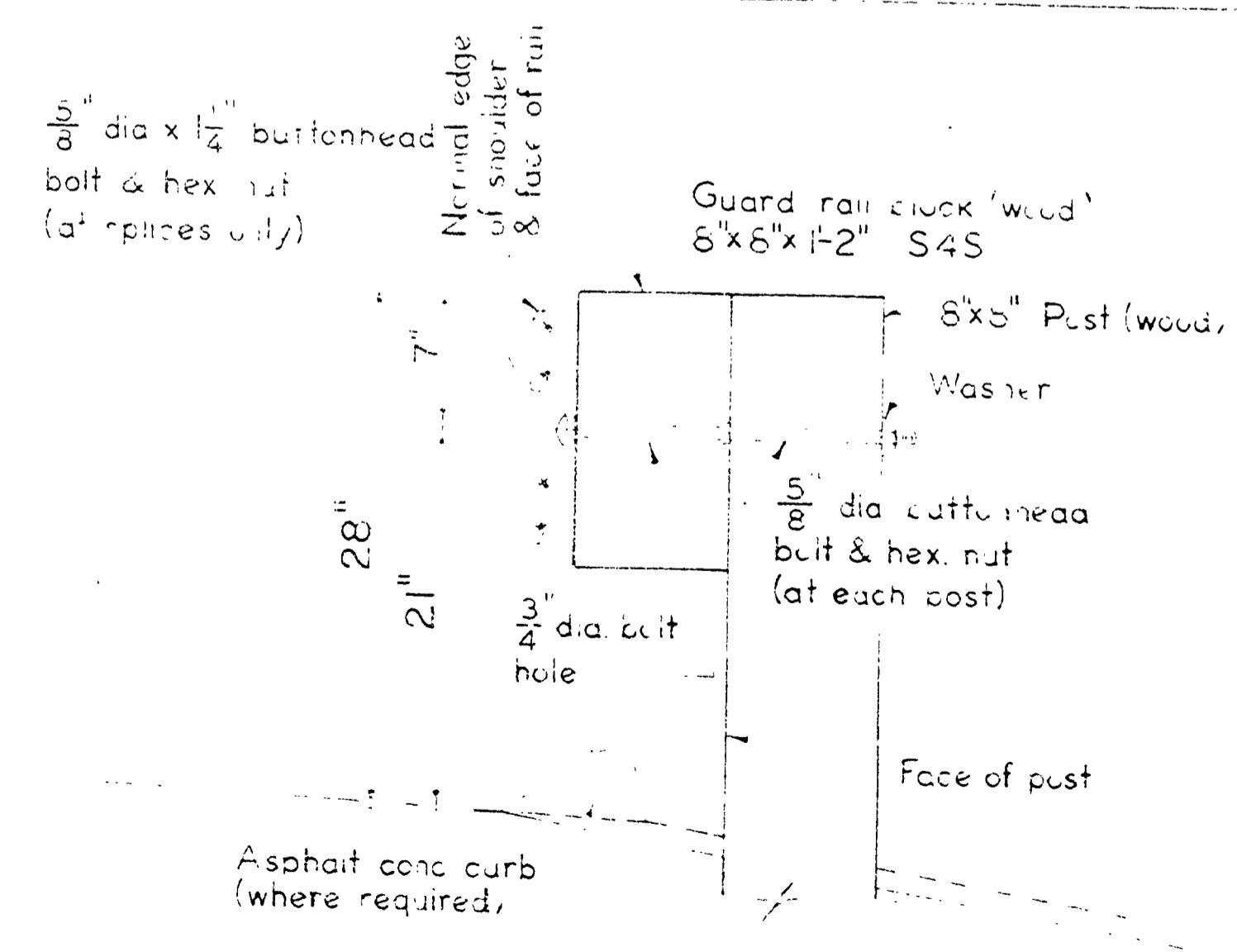
NOT REVISED
AS CONSTRUCTED

For W greater than shown use $Y = W \frac{X^2}{T^2}$ and
T (closest multiple of 12.5) = 87.5 + W.
Y = Offset distance to face of rail.

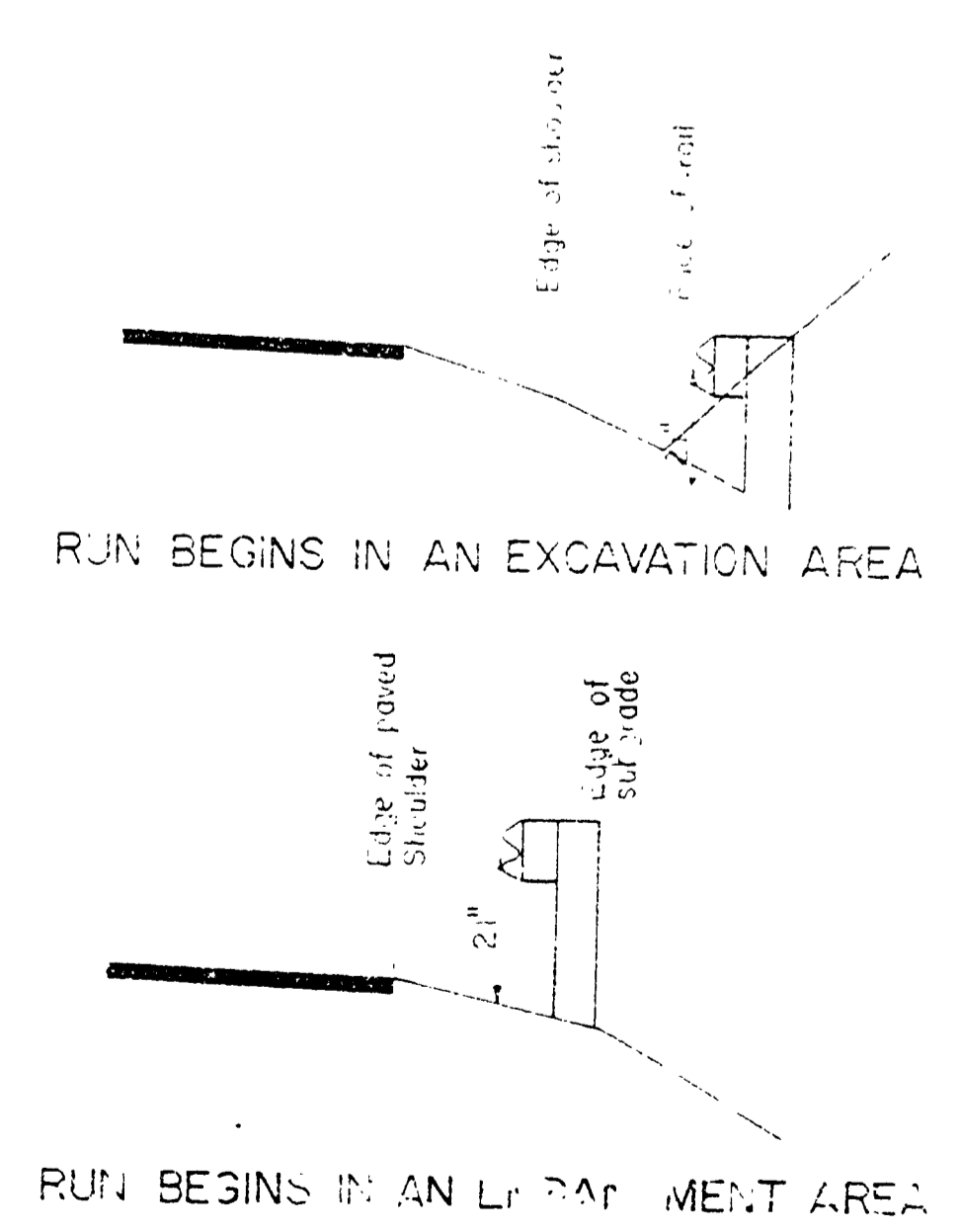
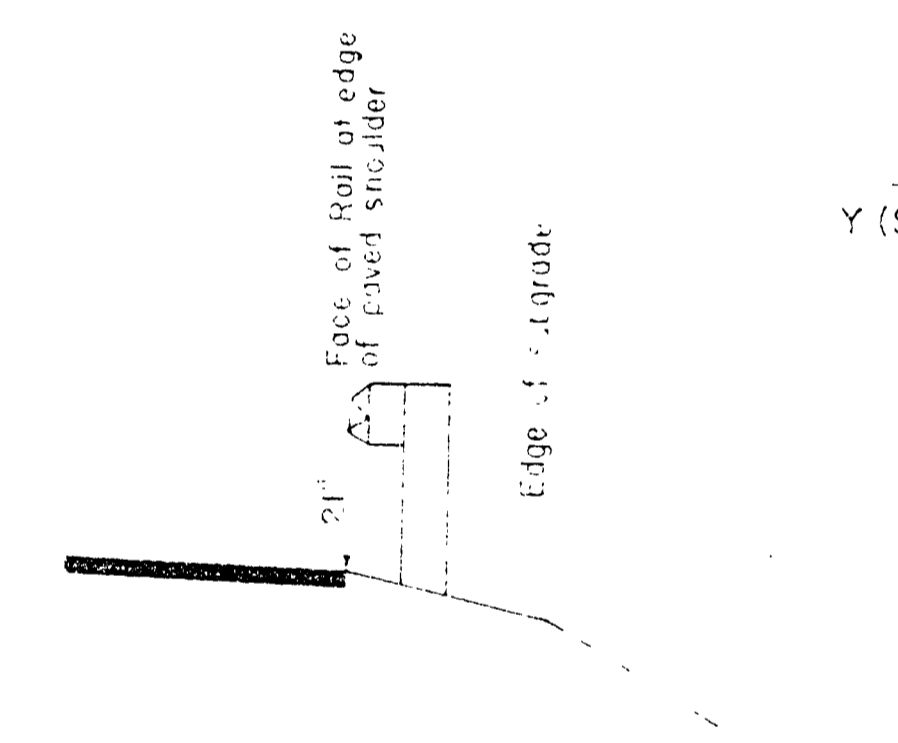
WOOD POST



WOOD POST



SECTION



DOUGLAS COUNTY RD DEPT
GUARD RAIL
APRIL 1962 Standard Dwg. 5

0000GUAR

R.D. # 4
Annex 1976
4 (55)

STANDARD SYMBOLS

	EXISTING	TO BE CONSTRUCTED		EXISTING	TO BE CONSTRUCTED		EXISTING	TO BE CONSTRUCTED
DRIVEWAY			SIGN POST WOOD			GUARD RAIL		
DRIVEWAY, RURAL			SIGN POST, STEEL OR CONCRETE			FENCE		
DRIVEWAY, URBAN			UNDERGROUND CABLE			GATE		
DRIVEWAY, URBAN (IN PROFILE)			WATER PIPE			PROPERTY CORNER		
DRIVEWAY, (SEVER)			WATER VALVE			R/W PIN		
ACCESS POINT			WATER METER			STREET MONUMENT		
CURB			FIRE HYDRANT			SEC. COR., D.L.C. COR. OR SUBDVN. INTL. POINT		
ROAD SHOULDER			GAS PIPE			CITY LIMITS		
EDGE OF PAVEMENT			GAS VALVE			TOWNSHIP LINE		
TOP OF CUT			GAS METER			SECTION LINE		
TOE OF FILL			SANITARY SEWER			1/4 SECTION LINE		
STREAM			STORM SEWER			1/16 SECTION LINE		
INTERMITTENT STREAM			CULVERT			DONATION LAND CLAIM LINE		
SPRING			MANHOLE			R/W LINE, LOT LINE, PROPERTY LINE		
MARSH			MANHOLE (IN PROFILE)			SLOPE EASEMENT LINE		
TREE (EVERGREEN)			MANHOLE (TO BE ADJUSTED)					
TREE (DECIDUOUS)			MANHOLE (TO BE REMOVED)					
BRUSH			CLEANOUT (LAMPHOLE)					
SHRUBS			CATCH INLET					
DITCH			CATCH INLET (IN PROFILE)					
LAWN SPRINKLER HEAD			CATCH INLET (TO BE ADJUSTED)					
WELL OR PUMP HOUSE			CATCH INLET (TO BE REMOVED)					
POWER POLE			DITCH INTERCEPTOR					
TELEPHONE POLE			DITCH INTERCEPTOR (IN PROFILE)					
TELEGRAPH POLE			DITCH INTERCEPTOR (TO BE REMOVED)					
SIGNAL SERVICE POLE			BRIDGE					
TELEPHONE PEDESTAL			BOX CULVERT					
LIGHT POLE			RETAINING WALL					
DOWN GUY & ANCHOR			RAILROAD TRACK					

NOT REVISED
AS CONSTRUCTED

Douglas County Road Dept.

STANDARD SYMBOLS

Oct. 1968 Standard Drawing # 9

0000STAN

APRIL 1970
4

