

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT
I-0A4-3(7)/64924
PARKS HIGHWAY MILE 216 NORTH
Paving, Grading & Bridge Rehab

As-Built Plans

Work Began: April 20, 1992
Work Completed: June 17, 1993
Project Engineer: Bruce Herning
Contractor: Eastwind, Inc.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3(7)	1991	1	26

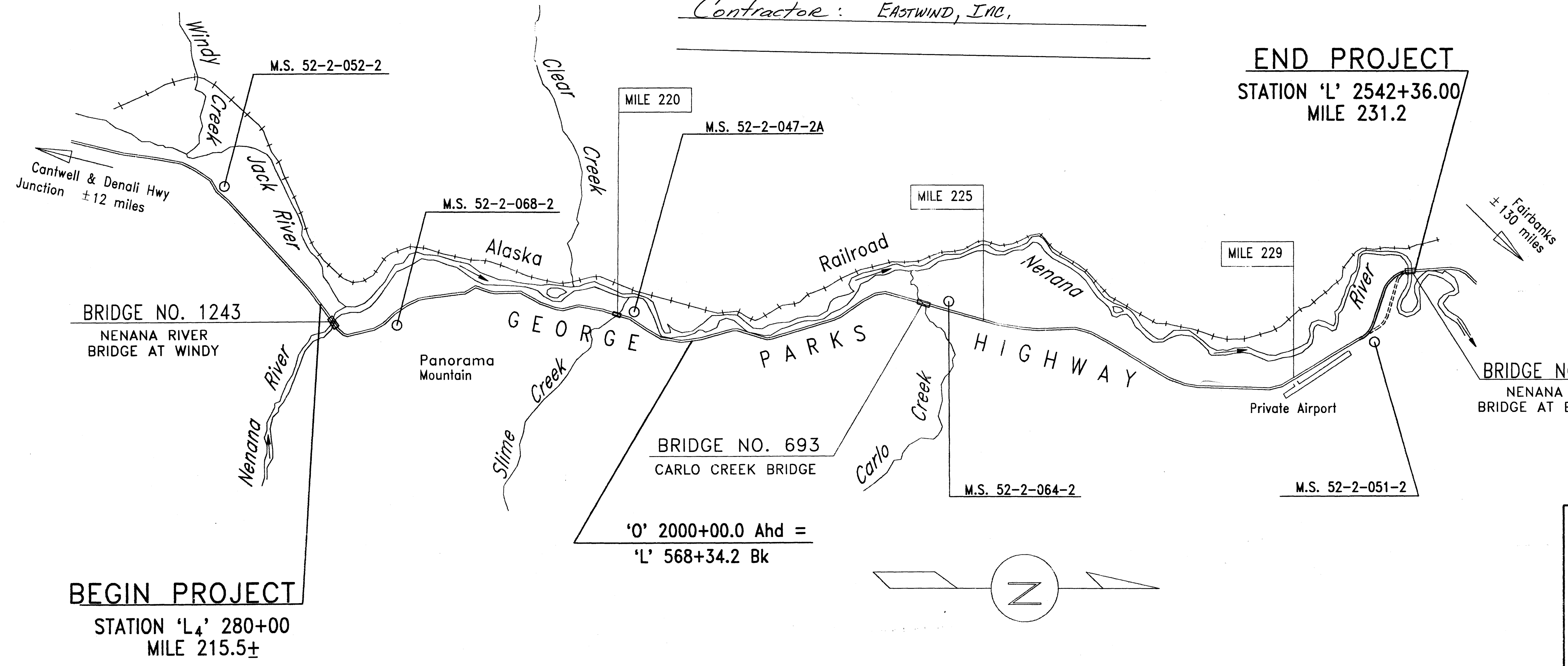
ADDENDUM NO. 1 ATTACHMENT NO. 10

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3	ESTIMATE OF QUANTITIES
4	EQUATIONS & BRIDGE TRANSITIONS
5-8	SLIME CREEK DRAINAGE IMPROVEMENTS
9	DITCH DRAIN DETAILS
10-12	APPROACH SUMMARY & DETAILS
13	CLEARING & SEEDING SUMMARY
14	CULVERT & MONUMENT SUMMARY
15-17	GUARDRAIL SUMMARY & DETAIL
18,19	SIGN SUMMARY & DELINEATOR SUMMARY
20-23	BRIDGE IMPROVEMENTS
24,25	TCP & CONSTRUCTION SIGNING
26	MATERIAL SOURCES

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1, C-01.03, C-02.01, C-03.01, C-04.00, D-01.01, D-04.10, D-05.10, D-06.01, D-07.00, D-09.00, D30.01, G-04.035, G-09.01S, G-09.01W, G-14.04S, G-14.04W, G-18.00S, G-29.01S, G-29.01W, I-81.00, M-16.01, M-20.10, M-23.10, S-00.00, S-05.00, S-30.01, T-03.02, T-05.00, T-20.00, T-21.01, ~~G-03.00, G-11.00~~

0040
 PARKS HIGHWAY MILE 216 NORTH
 I-0A4-3(7)/64924
 Completed: 6-17-93



DESIGN DESIGNATIONS	
ADT (1989)	1,375
ADT (2002)	1,950
DHV (2002)	14%=273
TRUCKS (%)	12%
DIRECTIONAL SPLIT	45-55%
V (DESIGN SPEED)	60 MPH
DESIGN LANE EALS (2002)	1,273,854

PROJECT SUMMARY	
WIDTH OF PAVEMENT	40 FEET ✓
LENGTH OF GRADING	80,511.85 FT=15.24 MI ✓
LENGTH OF PAVING	80,175.07 FT=15.20 MI ✓
LENGTH OF BRIDGES	824.42 FT= 0.16 MI ✓
MISCELLANEOUS WORK	2,024.28 FT=0.38 MI ✓
LENGTH OF PROJECT	83,360.55 FT= 15.79 MI ✓

PLANS DEVELOPED BY:
GARY C. WALKLIN
UNDER THE SUPERVISION OF:
DAN G. STERLEY, PE

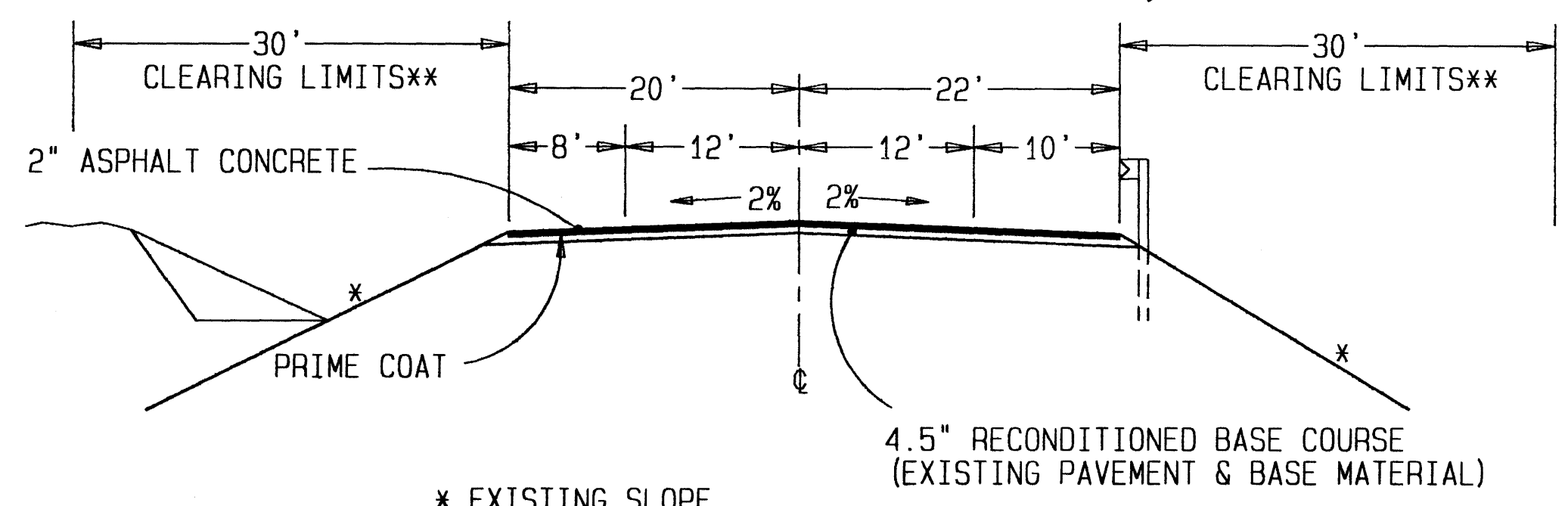


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
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APPROVED BY:
[Signature] DATE 9-29-91
DESIGN CHIEF, NORTHERN REGION DESIGN AND CONSTRUCTION

64924P06	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
	ALASKA	I-0A4-3 (7)	1991	2	26

TYPICAL SECTION No. I RECONDITIONING TYPICAL

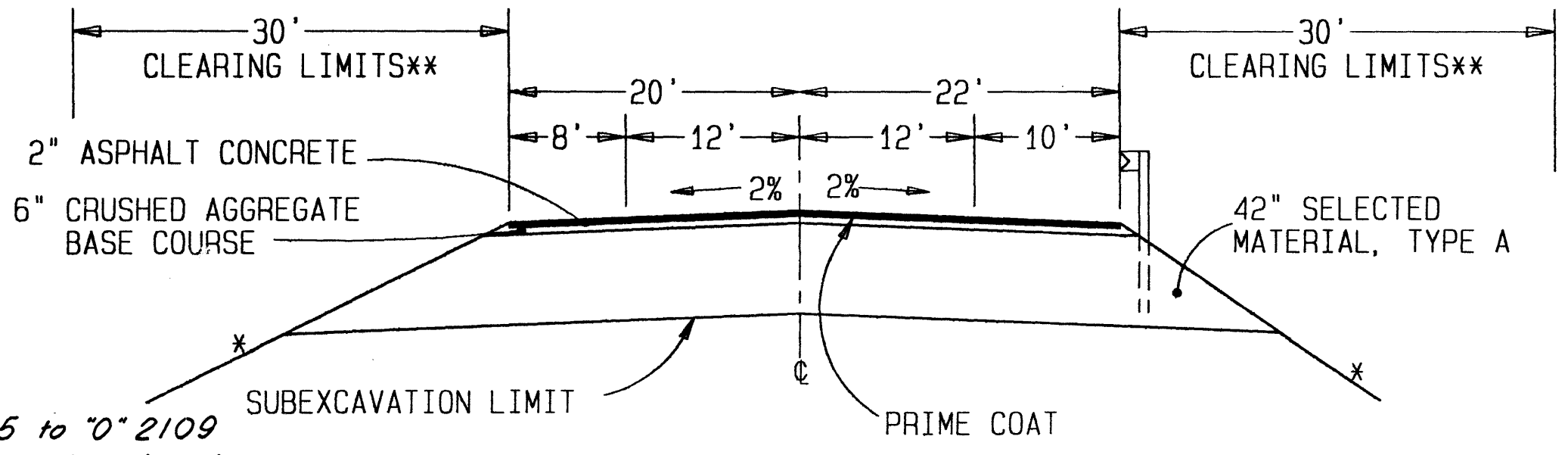


* EXISTING SLOPE.
** SEE CLEARING SUMMARIES, SHEET 13.

Begin at Sta. "L" 303+91 E.O.B. and End at Sta. "L" 2538+55.8 B.O.B. except Typical II and Typical III Sections.

TYPICAL SECTION No. II SUBGRADE STABILIZATION TYPICAL

(SEE SUBEXCAVATION SUMMARY, SHEET No. 3)



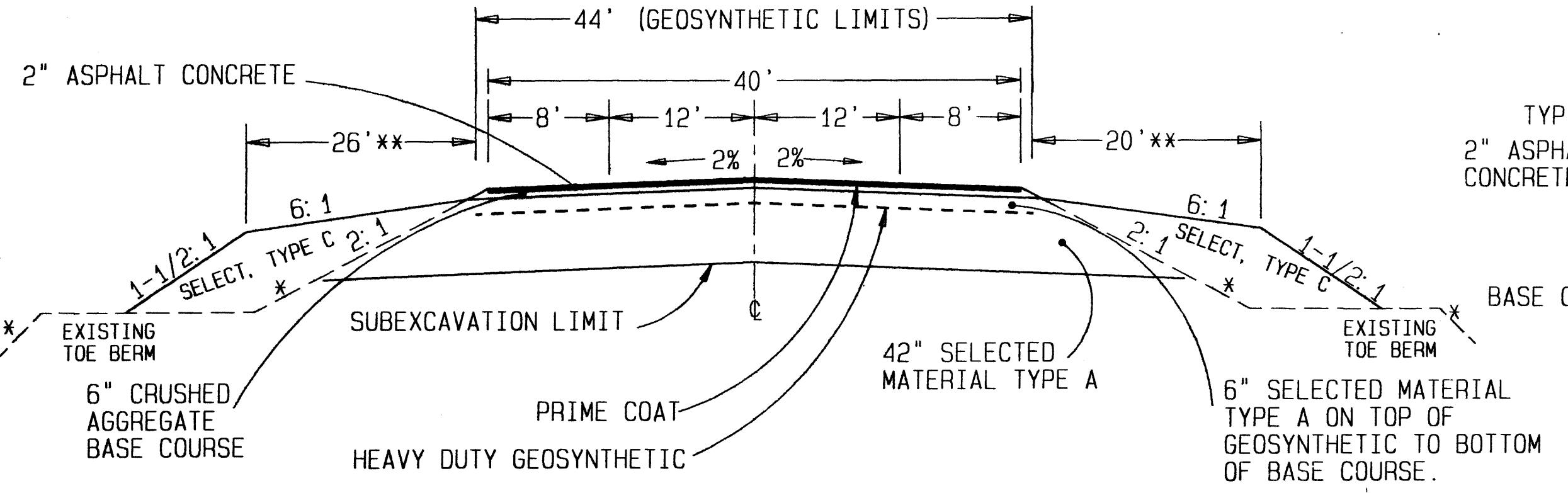
"0" 2105 to "0" 2109 excavate vertically at 20' left of centerline to subexcavation limit.

* MATCH EXISTING SLOPE.
** SEE CLEARING SUMMARIES, SHEET 13.

TYPICAL SECTION No. III SUBGRADE STABILIZATION TYPICAL

(See Subexcavation Summary, Sheet No. 3)

"L" 2525 to "L" 2530



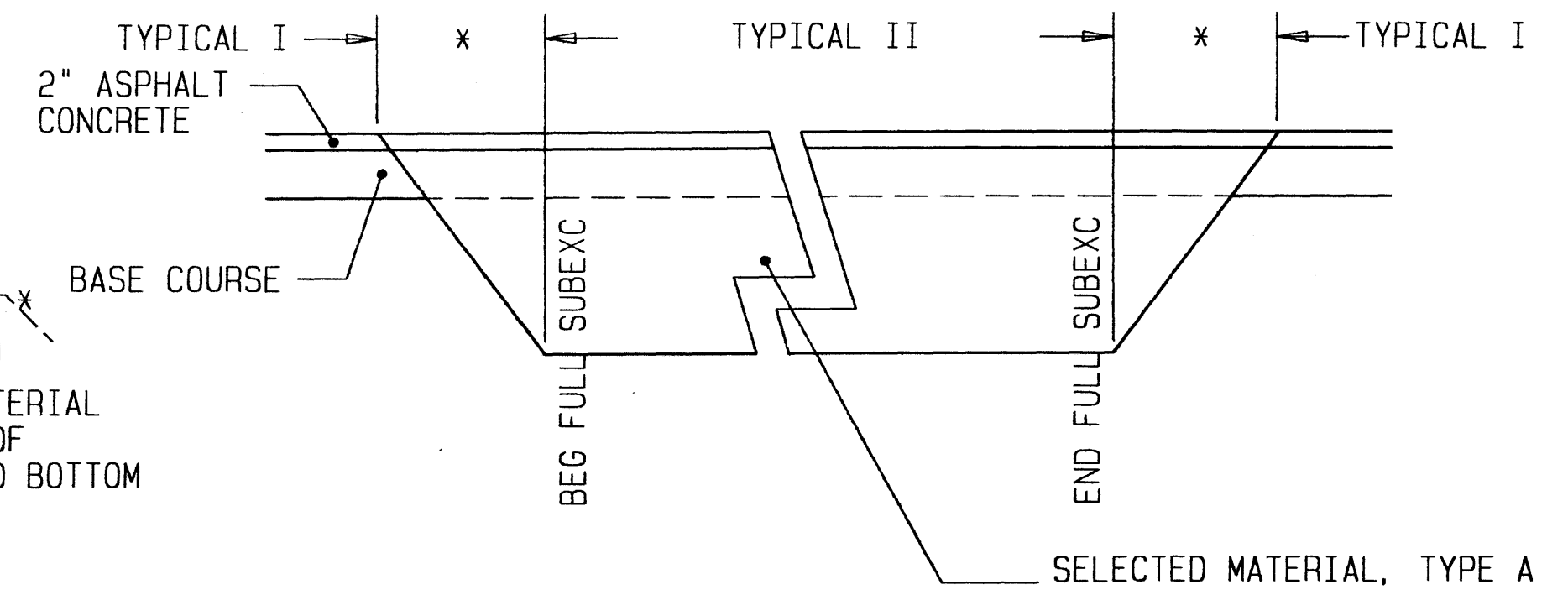
* EXISTING SLOPES VARY
** SLOPE FLATTENING BEGINS AT TOP OF SELECT SHOULDER.

GENERAL NOTES:

- STATIONING ON THIS PROJECT IS APPROXIMATE AND IS SUBJECT TO MINOR REVISIONS AS DIRECTED BY THE ENGINEER. STATIONING IS BASED ON AS-BUILTS FOR PROJECT F-037-2 (19).
- THE EXISTING PAVEMENT ON THIS PROJECT IS APPROXIMATELY 1-1/2" IN THICKNESS. PATCHED AREAS CAN BE EXPECTED TO BE THICKER. ALL RECONDITIONING SHALL BE IN ACCORDANCE WITH SECTION 303 OF THE SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- QUANTITIES REQUIRED FOR APPROACH CONSTRUCTION ARE INCLUDED IN THE ESTIMATE OF QUANTITIES.
- REMOVAL AND DISPOSAL OF EXISTING CULVERTS AND EXCAVATION FOR CULVERT PLACEMENT WILL NOT BE MEASURED OR PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THEIR RESPECTIVE 603 ITEMS.
- WORK AND EQUIPMENT REQUIRED FOR PAVING TRANSITIONS WILL NOT BE MEASURED OR PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO PAY ITEMS 203 (3) AND 301 (1).
- AFTER COMPLETION OF PAVING OPERATIONS, MATERIALS SHALL BE PULLED FROM THE SLOPES TO MATCH THE NEW PAVEMENT AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE MEASURED OR PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 401 (1).
- EXISTING TRAFFIC MARKINGS SHALL BE REFERENCED TO CENTERLINE STATIONING AND REESTABLISHED BY THE CONTRACTOR. A COPY OF THE TRAFFIC MARKING REFERENCES SHALL BE FURNISHED TO THE ENGINEER FOR VERIFICATION AT LEAST TWO WORKING DAYS PRIOR TO DESTROYING EXISTING PAVEMENT MARKINGS. THIS SHALL INCLUDE BEGINNING AND ENDING OF SOLID AND/OR BROKEN LINES, SYMBOLS, AND ALL OTHER MARKINGS THAT WILL BE REPLACED ON THE NEW PAVEMENT. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ANY CHANGES FROM THE EXISTING MARKINGS OR WHERE THE ORIGINAL MARKINGS ARE NOT VISIBLE.
- THE TRAFFIC MARKINGS ITEM SHALL INCLUDE THE SECTIONS THAT DO NOT REQUIRE ASPHALT CONCRETE (BRIDGES, EQUIPMENT CROSSINGS, ETC).
- THE STRIPE/SKIP RATIO FOR THIS PROJECT SHALL BE 10/30 (RURAL).
- APPROXIMATELY 8200 TONS OF CRUSHED AGGREGATE BASE COURSE WILL BE REQUIRED FOR GRADE & SHOULDER LEVELING. THESE QUANTITIES ARE INCLUDED IN THE ESTIMATE OF QUANTITIES.
- SUPERELEVATION RATES AND TRANSITIONS WILL MATCH EXISTING UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- PRIOR TO EXCAVATING OR RECONDITIONING THE EXISTING EMBANKMENT, THE CONTRACTOR SHALL PROFILE THE ROADWAY CENTERLINE. IN GENERAL, THE NEW FINISHED GRADE WILL NOT VARY FROM THE EXISTING GRADE EXCEPT TO ACCOUNT FOR LOCALIZED SETTLEMENT AND EMBANKMENT DISTORTIONS.
- THE BOTTOM OF EXCAVATION SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180, METHOD "D" OR ALASKA METHOD T-12.
- SUB-EXCAVATION AREAS LESS THAN 200 FT IN LENGTH SHALL BE BACK-FILLED TO THE TOP OF SELECT IN THE SAME SHIFT.
- EXCAVATION FOR MCKINLEY VILLAGE HILL DITCH DRAIN AND DOWN DRAIN WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 605 (7). SEE PLAN SHEET No. 9.
- BRIDGE DECKS WILL NOT BE PAVED.
- TOP OF BASE COURSE ELEVATION SHALL MATCH EXISTING TOP OF EXISTING PAVEMENT GRADE FOR ALL TYPICALS EXCEPT SLIME CREEK GRADE RAISE AND TRANSITIONS INTO THE BRIDGES.
- DELETE NOTE 9 ON STANDARD DWG. D-30.01.
- MINIMUM POST EMBEDMENT DEPTH FOR MAIL BOXES SHALL BE 24".
- STATIONS 2526+50 TO 2530+00 IN THE TYPICAL III SECTION WERE REPAIRED IN 1987. THERE IS A 40 FT. WIDE LAYER OF GEOTEXTILE APPROXIMATELY 3 FT. BELOW THE TOP OF EXISTING PAVEMENT. REMOVAL SHALL BE INCIDENTAL TO ITEM 203 (3).

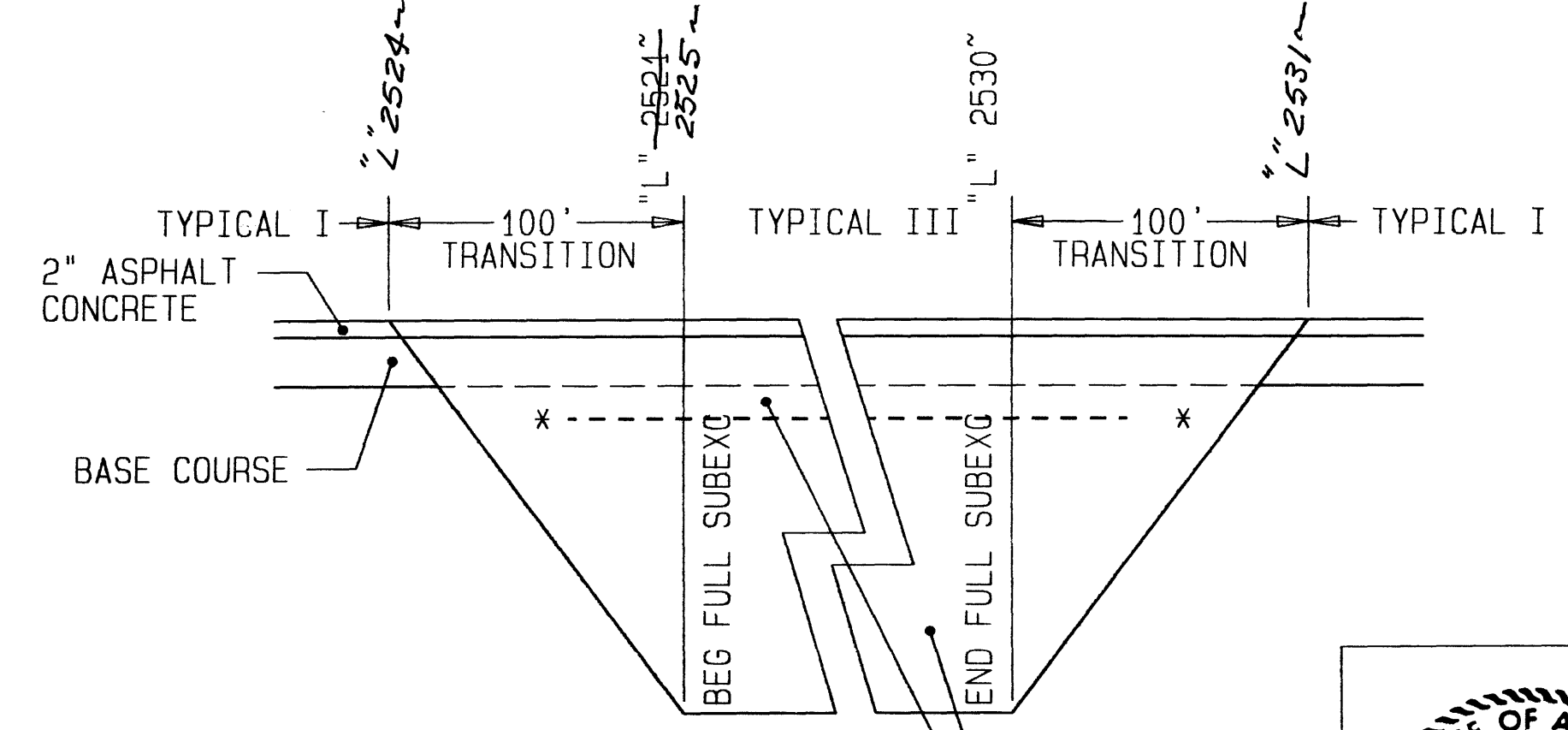
SEE SHEETS 5 & 7 FOR SPECIAL TYPICALS.

TYPICAL II TRANSITION DETAIL



* SEE SUBGRADE STABILIZATION SUMMARY, SHEET 3

TYPICAL III TRANSITION DETAIL



* EXTEND HEAVY DUTY GEOSYNTHETIC 25' PAST FULL LIMITS OF SUBEXCAVATION.

SELECTED MATERIAL, TYPE A
6" SELECT MATERIAL ON TOP OF HEAVY DUTY GEOSYNTHETIC TO LIMITS OF SUBEXCAVATION.

AS-BUILT



ADDENDUM NO. 1 ATTACHMENT NO. 11

ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY	ACTUAL
120 (1)	DBE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	✓
201 (1B)	CLEARING	LUMP SUM	ALL REQUIRED	✓
202 (10)	SINGLE MAIL BOX INSTALLATION	EACH	2.0	3.0
203 (3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	14,614.0	15,000.0
203 (6)	BORROW	TON	61,412	49,500.0
203 (11)	SLIME CREEK DIKE	LUMP SUM	ALL REQUIRED	✓
208 (1)	DITCH GRADING	STATION	49,155	24.5
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON	49,872.0	30,000.0
303 (1)	RECONDITIONING	STATION	769.1	782.5
305 (1A)	STOCKPILED MATERIAL, GRADING D-1	CUBIC YARD	6,000.0	✓
305 (1B)	STOCKPILED MATERIAL, GRADING E	CUBIC YARD	6,000.0	✓
401 (1)	ASPHALT CONCRETE, TYPE IV	TON	42,301.7	41,365.0
401 (2)	AC 2.5 ASPHALT CEMENT	TON	2,241.8	2,482.0
401 (7)	RUMBLE STRIPS	LUMP SUM	ALL REQUIRED	✓
403 (1)	MC-30 LIQUID ASPHALT FOR PRIME COAT	TON	101.28	220.0
501 (8)	EXPANSION JOINT SEAL	LINEAR FOOT	99.2	99.0
507 (1)	METAL BRIDGE RAILING	LINEAR FOOT	1,760.0	✓
603 (17-108)	108 INCH PIPE	LINEAR FOOT	252.0	✓
603 (17-18)	18 INCH PIPE	LINEAR FOOT	518.0	488.0
603 (17-24)	24 INCH PIPE	LINEAR FOOT	158.0	70.0
603 (17-48)	48 INCH PIPE	LINEAR FOOT	114.0	112.0
603 (20-18)	END SECTION FOR 18 INCH PIPE	EACH	32.0	30.0
603 (20-24)	END SECTION FOR 24 INCH PIPE	EACH	4.0	2.0
605 (5)	POROUS BACKFILL MATERIAL	CUBIC YARD	1,423.0	1,220.0
605 (7)	8" PERFORATED PIPE FOR DITCH DRAIN	LINEAR FOOT	700.0	✓
606 (1)	W-BEAM GUARDRAIL	LINEAR FOOT	2,787.5	2825.0
606 (3)	BOX BEAM GUARDRAIL	LINEAR FOOT	666.0	✓
606 (5)	REMOVAL AND DISPOSAL OF GUARDRAIL	LINEAR FOOT	12,237.6	✓
606 (8)	BREAK-AWAY CABLE TERMINAL	EACH	11.0	✓
606 (9)	CONTROLLED RELEASE TERMINAL	EACH	1.0	✓
606 (12)	GUARDRAIL / BRIDGE RAIL CONNECTION	EACH	12.0	✓
611 (2)	RIPRAP, CLASS II	TON	1,479.2	1,550.0
613 (2)	CULVERT MARKER POSTS	EACH	9.0	8.0
614 (2)	MONUMENT CASES	EACH	2.0	✓
614 (5)	REFERENCE & RESET MONUMENTS	EACH	5.0	✓
615 (1)	STANDARD SIGNS	SQUARE FOOT	419.3	426.0
615 (5A)	DELINEATORS, RIGID POLE	EACH	38.0	✓
615 (6)	DELINEATORS, FLEXIBLE TYPE D	EACH	30.0	23.0
616 (2)	3/4 INCH DIAMETER CULVERT THAW PIPE	EACH	2.0	✓
618 (2)	SEEDING	POUND	750.0	680.0
201 (3B)	CLEARING & GRUBBING	LUMP SUM	ALL REQUIRED	✓
203 (12)	EXTRA GRADING	LUMP SUM	ALL REQUIRED	✓
631 (2)	GEOTEXTILE FOR SUBSURFACE DRAINAGE	SQUARE YARD	2,788.0	2,833.0
633 (1)	HEAVY DUTY GEOSYNTHETIC	SQUARE YARD	2,789.3	2,800.0
639 (1)	APPROACHES	EACH	71.0	70.0
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	✓
641 (1)	TEMPORARY EROSION AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED	✓
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED	✓
642 (2)	THREE PERSON SURVEY PARTY	Hour	19.38	✓
615 (1A)	SIGN ADJUSTMENTS	LUMP SUM	ALL REQUIRED	✓
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	✓
643 (3)	PERMANENT CONSTRUCTION SIGNING	LUMP SUM	ALL REQUIRED	✓
643 (4)	CONSTRUCTION SIGN	DAY	2,390.0	2,000.0
643 (5)	TYPE II BARRICADE	DAY	3067.0	1,440.0
643 (7)	TRAFFIC CONE	DAY	3,229.0	2,200.0
643 (13)	TEMPORARY PAVEMENT MARKING	STATION	801.4	801.5
643 (15)	FLAGGING	HOUR	4,367.0	2,000.0
643 (16)	PILOT CAR	HOUR	1,162.0	1,200.0
643 (18)	WATERING	M-GALLON	1,437.0	4,000.0
603 (17-36)	36 INCH PIPE	LINEAR FOOT	1.0	✓
603 (20-36)	END SECTION FOR 36 INCH PIPE	EACH	1.0	✓
643 (25)	TEMPORARY DETOUR	EACH	1.0	✓
644 (1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED	✓
644 (2)	FIELD LABORATORY	LUMP SUM	ALL REQUIRED	✓
645 (1)	TRAINING PROGRAM	MAN HOUR	1,500.0	✓
670 (1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED	✓

TABLE OF ESTIMATING FACTORS

ITEM NO.	DESCRIPTION	FACTOR
203 (6)	BORROW	2 TONS/CU.YD.
301(1)	CRUSHED AGGREGATE BASE COURSE	145 LB/CU.FT.
401(1)	ASPHALT CONCRETE TYPE IV	110 LBS/SQ. YD. INCH
401(2)	A.C. 2.5 ASPHALT CEMENT	*
403(1)	MC-30 LIQUID ASPHALT FOR PRIME COAT	7.8 LBS/GAL
611(2)	RIPRAP CLASS II	1.85 TONS/CU.YD.

* 6% OF THE TOTAL WEIGHT OF THE MIX.

SUBGRADE STABILIZATION SUMMARY

BEGIN FULL EXC.	END FULL EXC.	TYPICAL	DEPTH OF CUT*	TRNS(FT) IN&OUT	UNCLS. EX(C.Y.)	BORROW (TONS)	REMARKS	WASTE DISPOSAL
'L' 485	'L' 491	II	48"	100	3915 4,800	9,500	RUTTING	SLIME CK SLOPE FLATTENING 510~TO 527~ LT&RT
"0" 2105+50 2106+00	"0" 2107+50 2108+00	II	48"	100	1715 2,000	3,500	RUTTING	SLOPE FLATTENING AT 2061 RT< HEADWALLS AND AHEAD LEFT 2066~ TO 2096
'L' 2340+50	'L' 2341	II	48"	50	589 700	1,500	BUMP	SLOPE FLATTENING 2366~TO 2372~LT&RT
'L' 2384+90	'L' 2385+50	II	48"	50	640 775	1,500	FROZEN SOILS @-2'	SLOPE FLATTENING 2374~TO 2382~LT&RT
'L' 2424+30 2426	'L' 2424+45 2426+15	II	48"	50	407 425	800	FROZEN SOILS @-1'	2465 TO 2470 RT
'L' 2525	'L' 2530	III	48"	100	4,330 4,000	7,800	SATURATED & FROZEN SOILS	SLOPE FLATTENING 2526~TO 2533~LT&RT
* MISC. EXCAVATION (INCLUDES SUMMARIES BELOW)					3,018			
TOTALS					12,700 14,614	24,600		

* FROM TOP OF PAVEMENT

ITEM 208 (1) DITCH GRADING SUMMARY

LOCATION	NO. OF STA.	APPROX WASTE QTY.	DISPOSAL AREA
397~RT TO 399~RT	2	110 C.Y.	SLOPE FLATTENING 411~ RT AHEAD TO 419~ RT
458~RT TO 467~RT	9	600 C.Y.	SLOPE FLATTENING 510~ TO 515~ RT & LT
472~RT TO 474~RT	2	100 C.Y.	SLOPE FLATTENING 411~ RT AHEAD TO 419~ RT
2128~RT TO 2133~RT	5	250 C.Y.	SLOPE FLATTENING AT HDWLS 2131~ TO 2133~ RT & LT
2524~RT TO 2526+50 RT	2.5	150 C.Y.	SLOPE FLATTENING 2527~ RT TO 2533~ RT
2523~LT TO 2527~LT	4	300 C.Y.	SLOPE FLATTENING 2527~ LT TO 2533~ LT
TOTALS	24.5	1,510 C.Y. (* SEE ABOVE)	

NOTE: ① OTHER WASTE AREAS MAY BE USED AS DIRECTED BY THE ENGINEER.

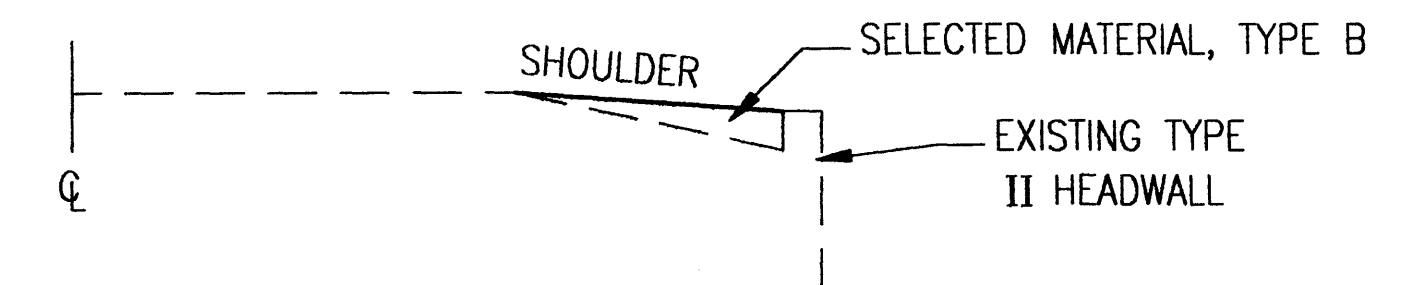
UNCLASSIFIED EXCAVATION FOR BRIDGE APPROACHES

BRIDGE APPROACH SUBCUTS	EXC. QUAN.	WASTE PLACEMENT
NENANA I - NORTH ABUTMENT	70 CU YDS	LT E.O.B.
NENANA II - SOUTH ABUTMENT	70 CU YDS	2528~ TO 2533~ SLOPE FLATTENING
CARLO CREEK - SOUTH ABUTMENT & NORTH ABUTMENT	90 CU YDS 90 CU YDS	2158~ TO 2160~ RT SHLD 2160+40 TO 2162~ RT SHLD
TOTAL	320 CU YDS *(SEE ABOVE)	

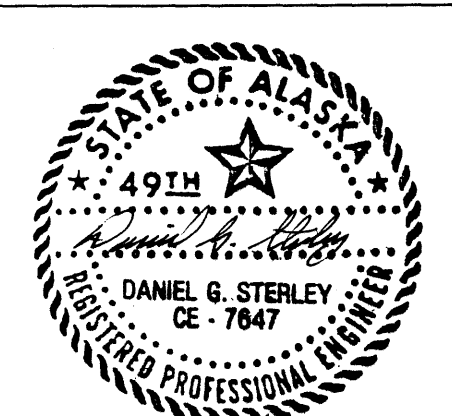
SLOPE FLATTENING TO TOP OF EXISTING HEADWALLS, TYPE II

STATION	BORROW QUANTITY
2061+00 RT & LT	24 TONS
2132+68 RT & LT	24 TONS
TOTAL	48 TONS

HEADWALL SLOPE FLATTENING DETAIL



A5-Built

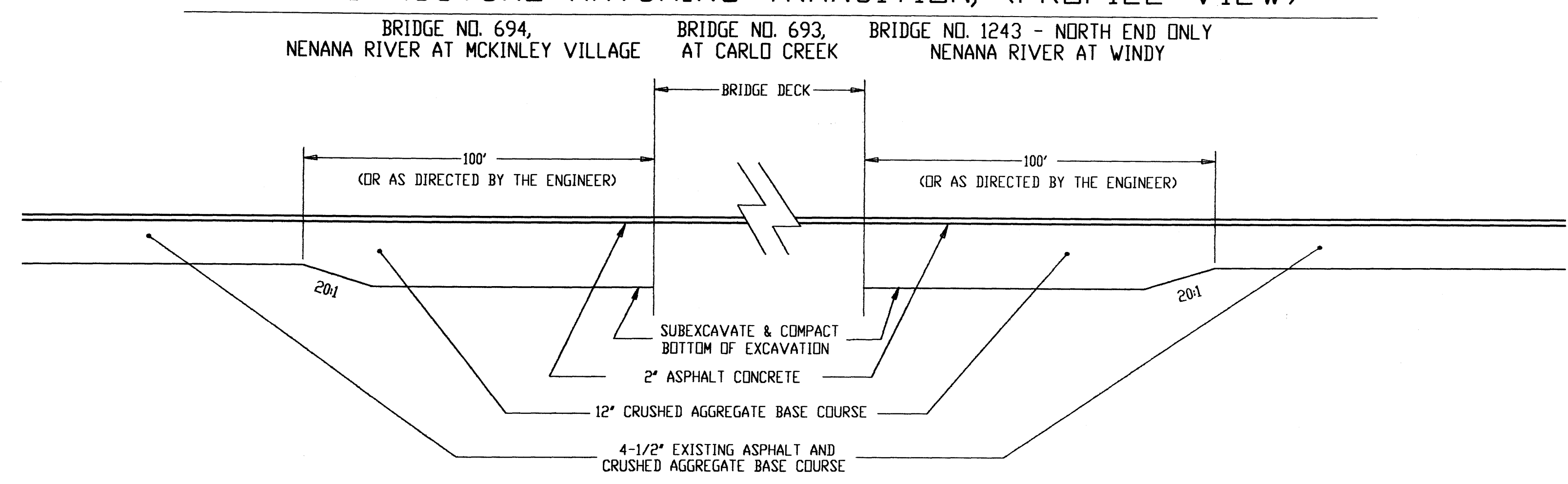


64924p15	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
	ALASKA	I-OA4-3(7)	1991	4	26

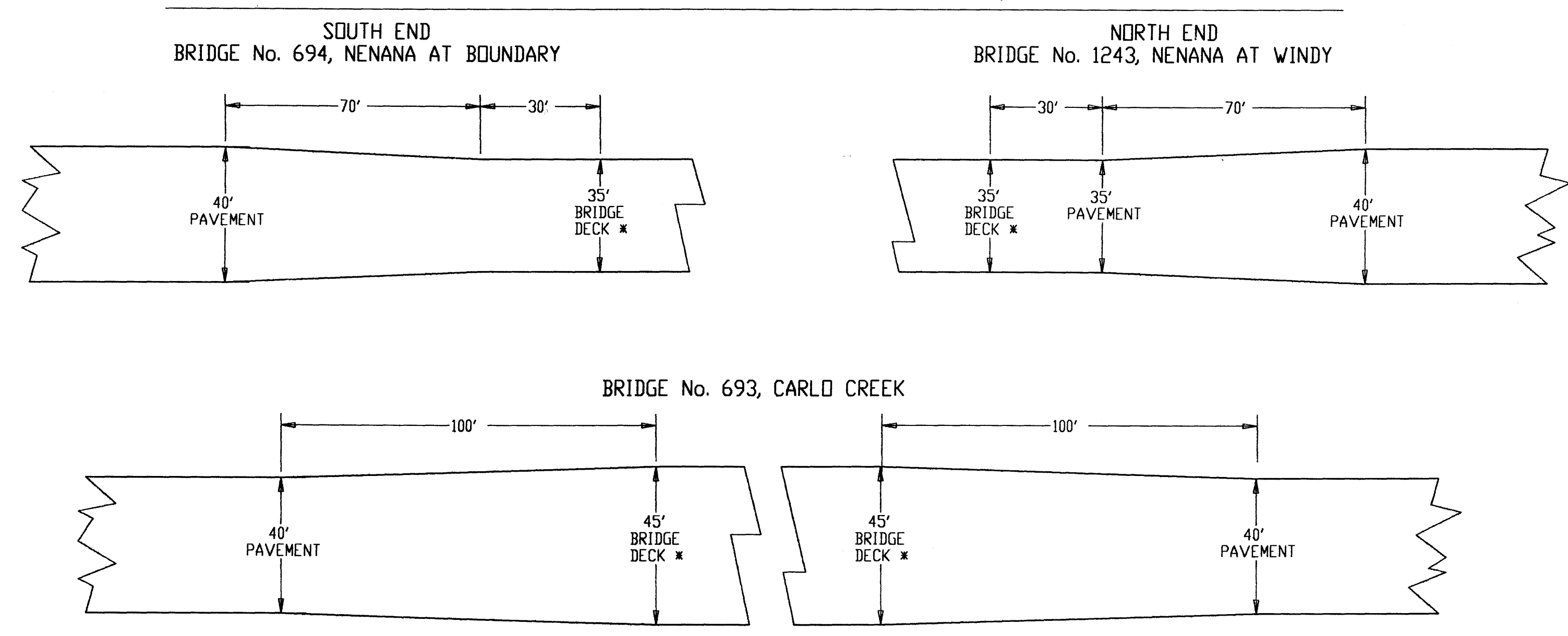
EQUATION STATIONS AND PROJECT LENGTH

LOCATION	STATION BREAK	LENGTH
B.O.P.	'L ₄ ' 280+00 P.O.C.	> 2,002.40'
	BEGIN BRIDGE 'L ₄ ' 300+02.40	> 388.60'
NENANA R. @ WINDY C.	END BRIDGE 'L ₄ ' 303+91.00	> 2,263.11'
	'L ₄ ' 326+54.11 P.C. =	> 4,245.11'
	'O' 326+54.11 P.C. =	> 2,423.30'
	'O' 368+99.22 P.T. =	> 1,802.37'
	'L' 372+47.50 P.O.T. =	> 402.70'
	'L' 396+70.80 P.O.T. =	> 1,104.50'
	'O' 396+70.80 P.C. =	> 2,003.00'
	'O' 414+73.17 P.T. =	> 2,122.00'
	'L' 414+82.10 P.O.T. =	> 6,637.70'
	'L' 418+84.80 P.C. =	> 2,523.90'
	'O' 418+84.80 P.O.T. =	> 643.00'
	'O' 429+89.30 P.O.T. =	> 3,729.10'
	'L' 429+84.80 P.T. =	> 6,605.40'
	'L' 449+87.80 P.O.T. =	> 4,004.50'
	'O' 449+87.80 P.C. =	> 1,696.50'
	'O' 471+09.80 P.O.T. =	> 77.42'
	'L' 471+09.10 P.T. =	> 7,897.88'
	'L' 537+46.80 P.C. =	> 22,265.10'
	'L' 537+46.80 P.O.T. =	> 7,765.90'
	'L' 562+70.70 P.O.T. =	> 358.40'
	'L' 561+91.20 P.T. =	> 21.88'
	'L' 568+34.20 P.O.T. =	
	'O' 2000+00.00 P.O.T. =	
	'O' 2037+29.10 P.O.T. =	
	'O' 2036+91.00 P.O.T. =	
	'O' 2102+96.40 P.O.T. =	
	'O' 2103+00.80 P.O.T. =	
	'O' 2143+05.30 P.O.T. =	
	'O' 2142+53.50 P.O.T. =	
CARLO CREEK	BEGIN BRIDGE 'C' 2159+50.00	>
	END BRIDGE 'O' 2160+27.42	>
	'O' 2239+25.30 P.T. =	>
	'L' 2239+28.40 P.O.T. =	>
	'L' 2461+93.50 BK. =	>
	'L' 2460+89.90 AHD. P.C. =	>
NENANA R. @ BOUNDARY	BEGIN BRIDGE 'L' 2538+55.80	>
	END BRIDGE 'L' 2542+14.20	>
E.O.P.	E.O.P. 'L' 2542+36.08	>
TOTAL PROJECT		82,983.77'

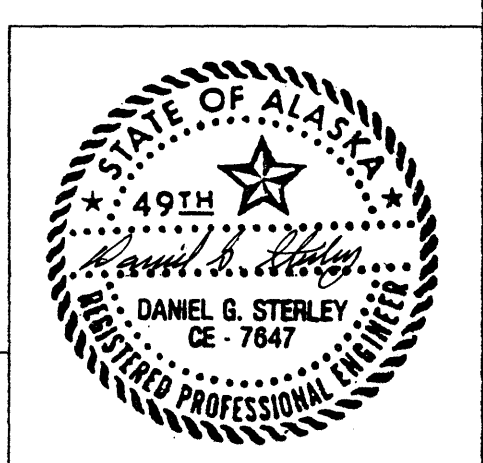
BRIDGE STRUCTURE MATCHING TRANSITION, (PROFILE VIEW)



BRIDGE STRUCTURE MATCHING TRANSITION, (PLAN VIEW)



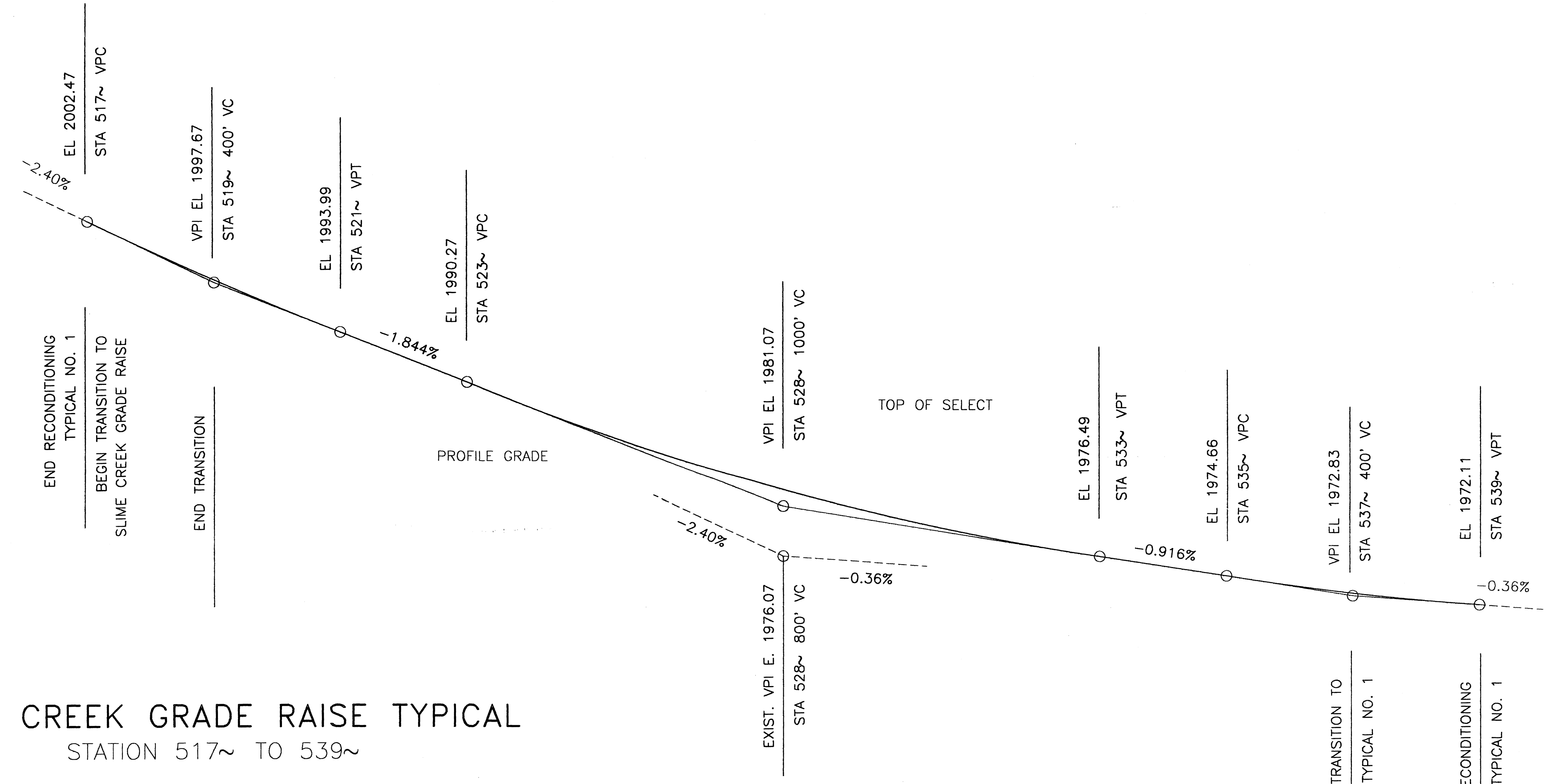
As-Built



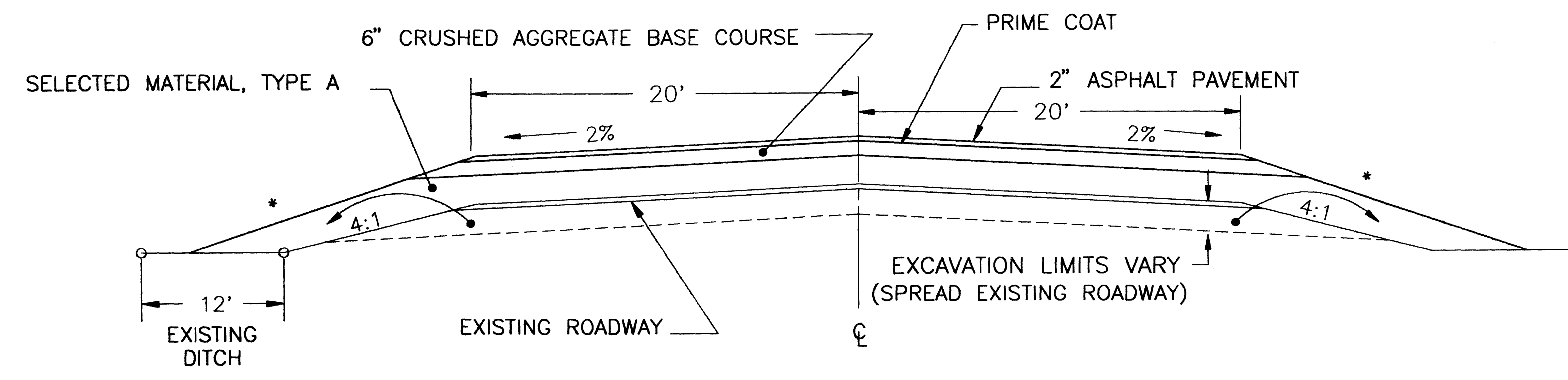
EQUATION STATIONING & PAVEMENT TRANSITION AT BRIDGES

SLIME CREEK GRADE RAISE ✓

'L' 517+00 to 'L' 539+00



SLIME CREEK GRADE RAISE TYPICAL STATION 517~ TO 539~



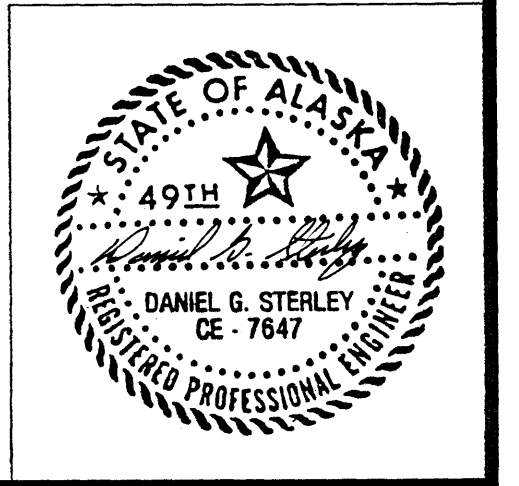
SLOPE TABLE

HEIGHT OF FILL	SLOPE
0' TO 5'	4:1
5' TO 10'	3:1
10' TO 15'	2:1
15' +	1-1/2:1

NOTES:

- SPREAD EXISTING ROADWAY TO SLOPE STAKE LIMITS AND COMPACT PRIOR TO BRINGING UP EMBANKMENT. SPREADING EXISTING ROADWAY WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 203(6), BORROW.

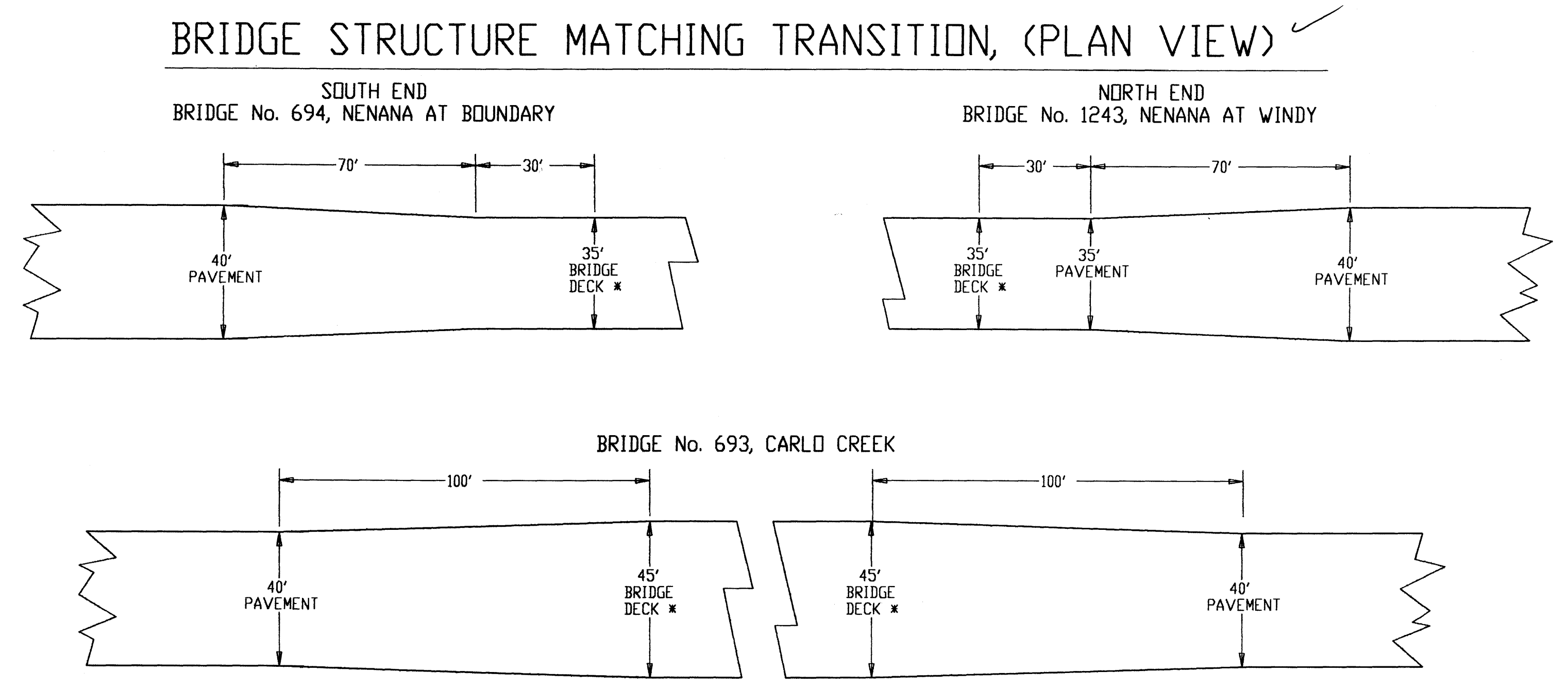
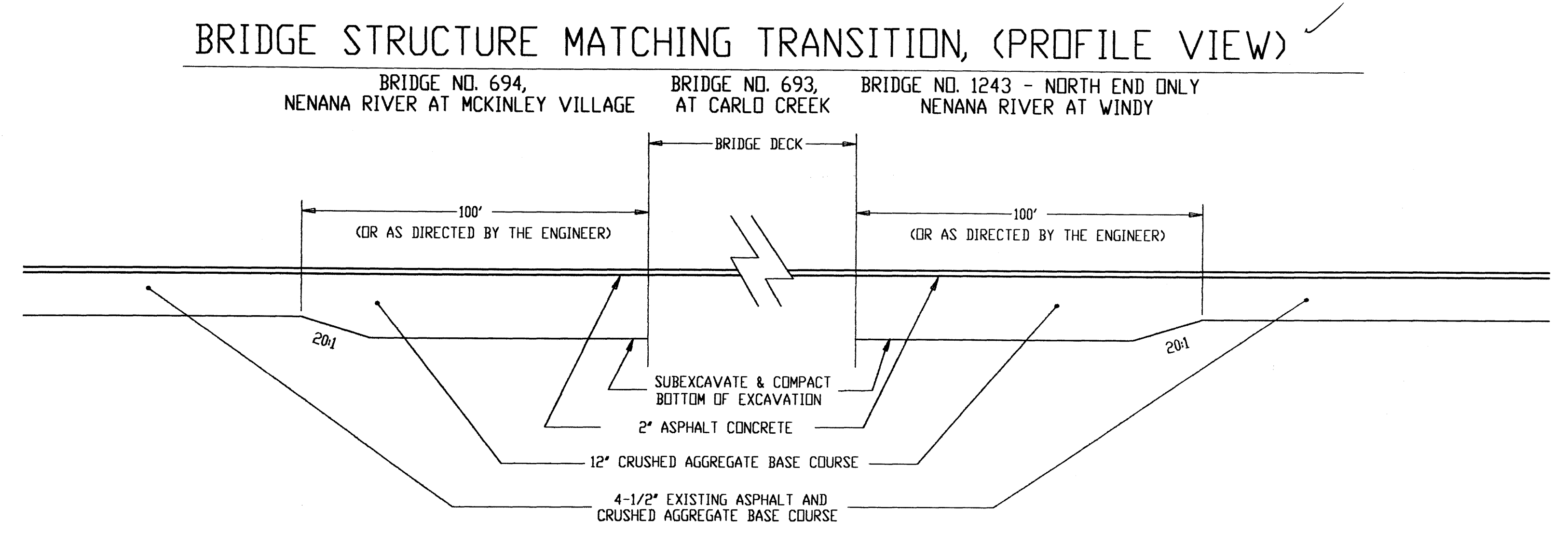
* USE SLOPE TABLE.



AS-BUILT

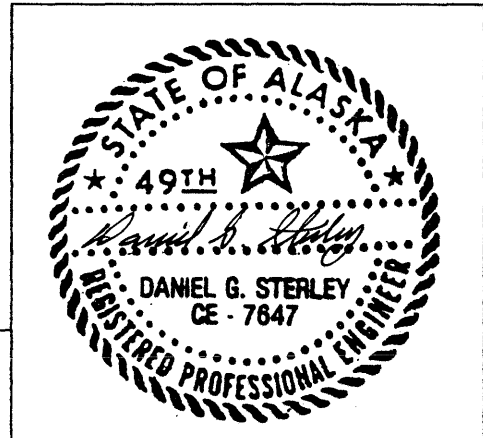
EQUATION STATIONS AND PROJECT LENGTH

LOCATION	STATION BREAK	LENGTH
B.O.P.	'L' 4' 280+00 P.O.C.	> 2,002.40'
	BEGIN BRIDGE 'L' 4' 300+02.40	> 388.60'
NENANA R. @ WINDY C.	END BRIDGE 'L' 4' 303+91.00	> 2,263.11'
	'L' 4' 326+54.11 P.C. = 'O' 326+54.11 P.C.	> 4,245.11'
	'L' 4' 372+47.50 P.O.T. = 'O' 368+99.22 P.T. =	> 2,423.30'
	'L' 4' 396+70.80 P.O.T. = 'O' 396+70.80 P.C. =	> 1,802.37'
	'L' 4' 414+73.17 P.T. = 'L' 4' 414+82.10 P.O.T. =	> 402.70'
	'L' 4' 418+84.80 P.C. = 'O' 418+84.80 P.O.T. =	> 1,104.50'
	'L' 4' 429+89.30 P.O.T. = 'L' 4' 429+84.80 P.T. =	> 2,003.00'
	'L' 4' 449+87.80 P.O.T. = 'O' 449+87.80 P.C. =	> 2,122.00'
	'L' 4' 471+09.80 P.O.T. = 'L' 4' 471+09.10 P.T. =	> 6,637.70'
	'L' 4' 537+46.80 P.C. = 'L' 4' 537+46.80 P.O.T. =	> 2,523.90'
	'L' 4' 562+70.70 P.O.T. = 'L' 4' 561+91.20 P.T. =	> 643.00'
	'L' 4' 568+34.20 P.O.T. = 'O' 4' 2000+00.00 P.O.T. =	> 3,729.10'
	'O' 4' 2037+29.10 P.O.T. = 'O' 4' 2036+91.00 P.O.T. =	> 6,605.40'
	'O' 4' 2102+96.40 P.O.T. = 'O' 4' 2103+00.80 P.O.T. =	> 4,004.50'
	'O' 4' 2143+05.30 P.O.T. = 'O' 4' 2142+53.50 P.O.T. =	> 1,696.50'
CARLO CREEK	BEGIN BRIDGE 'C' 2159+50.00	> 77.42'
	END BRIDGE 'O' 2160+27.42	> 7,897.88'
	'O' 4' 2239+25.30 P.T. = 'L' 4' 2239+28.40 P.O.T. =	> 22,265.10'
	'L' 4' 2461+93.50 BK. = 'L' 4' 2460+89.90 AHD. P.C. =	> 7,765.90'
NENANA R. @ BOUNDARY	BEGIN BRIDGE 'L' 2538+55.80	> 358.40'
	END BRIDGE 'L' 2542+14.20	> 21.88'
E.O.P.	E.O.P. 'L' 2542+36.08	
TOTAL PROJECT		82,983.77'



* OUT TO OUT OF DECK

AS-BUILT

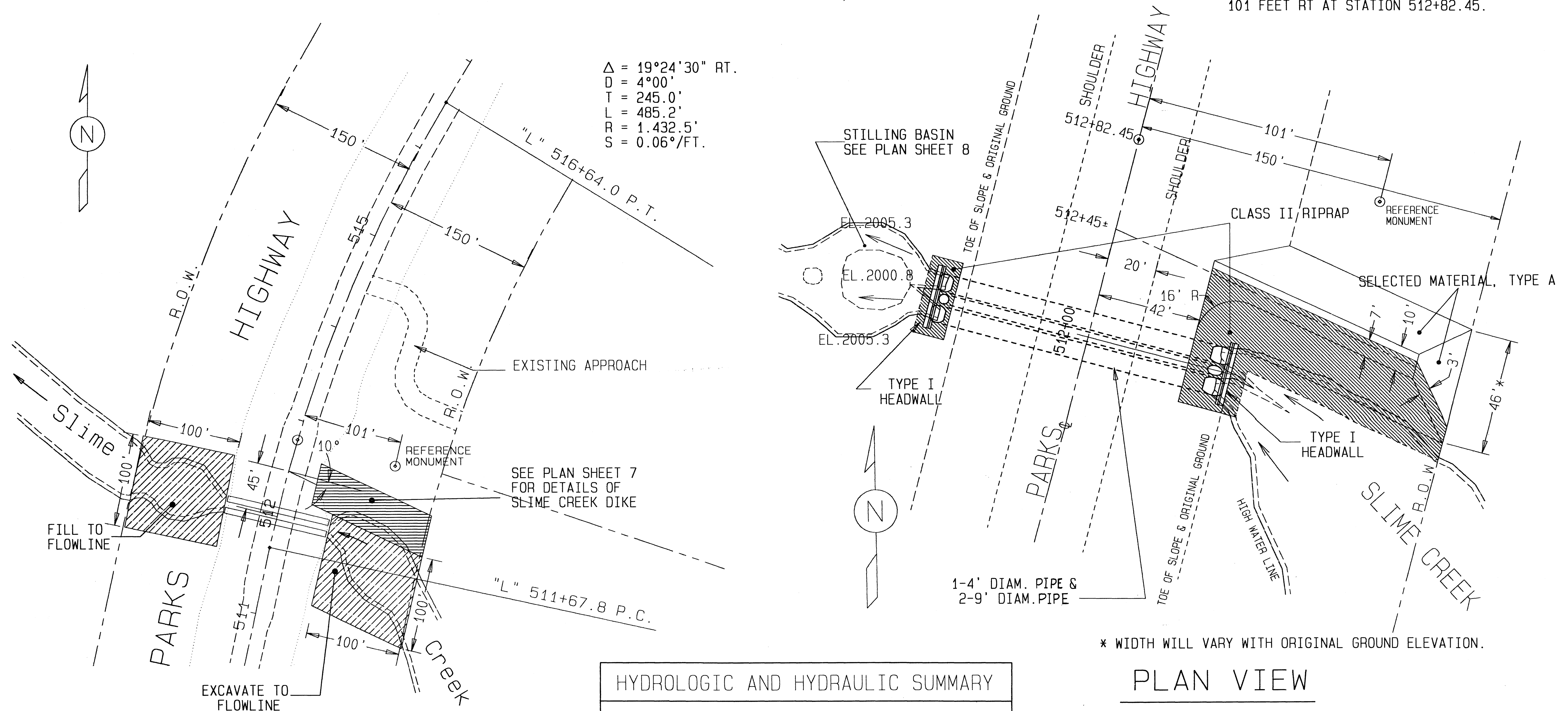


SLIME CREEK DRAINAGE IMPROVEMENTS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3 (7)	1991	6	26

NOTE:

REFERENCE AND RESET MONUMENTS AT CENTERLINE AND 101 FEET RT AT STATION 512+82.45.



$\Delta = 19^\circ 24' 30''$ RT.
 $D = 4^\circ 00'$
 $T = 245.0'$
 $L = 485.2'$
 $R = 1.432.5'$
 $S = 0.06^\circ/\text{FT.}$

HYDROLOGIC AND HYDRAULIC SUMMARY

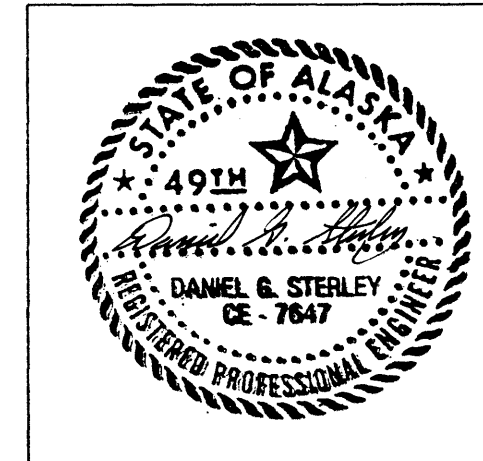
DRAINAGE AREA	6.9 SQ. MILES	
EXCEEDANCE PROBABILITY	2%	1%
DESIGN DISCHARGE	673 CFS	861 CFS
DESIGN HIGH WATER	2009.3 FT	2012.5 FT
ANTICIPATED ADDIT. BACKWATER	0 FT	

THE TOTAL CAPACITY OF THE STRUCTURE IS 861 CFS AT 2012.5 FEET (TOP OF DIKE), WHICH IS EQUAL TO OR LESS THAN AN EXCEEDANCE PROBABILITY OF 1% (Q100 OR GREATER).

* WIDTH WILL VARY WITH ORIGINAL GROUND ELEVATION.

PLAN VIEW

FILL LIMITS



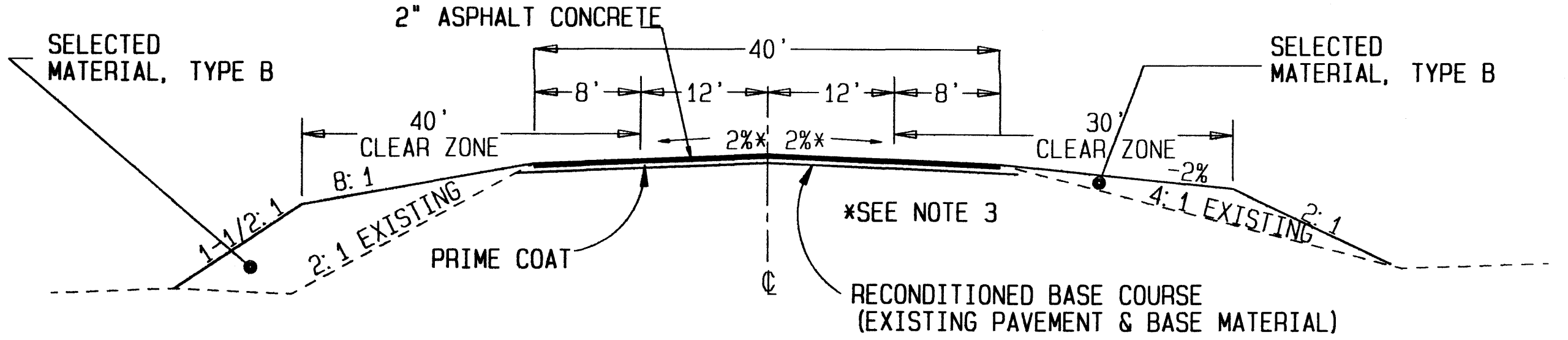
AS-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3 (7)	1991	7	26

SLIME CREEK TYPICAL SECTIONS

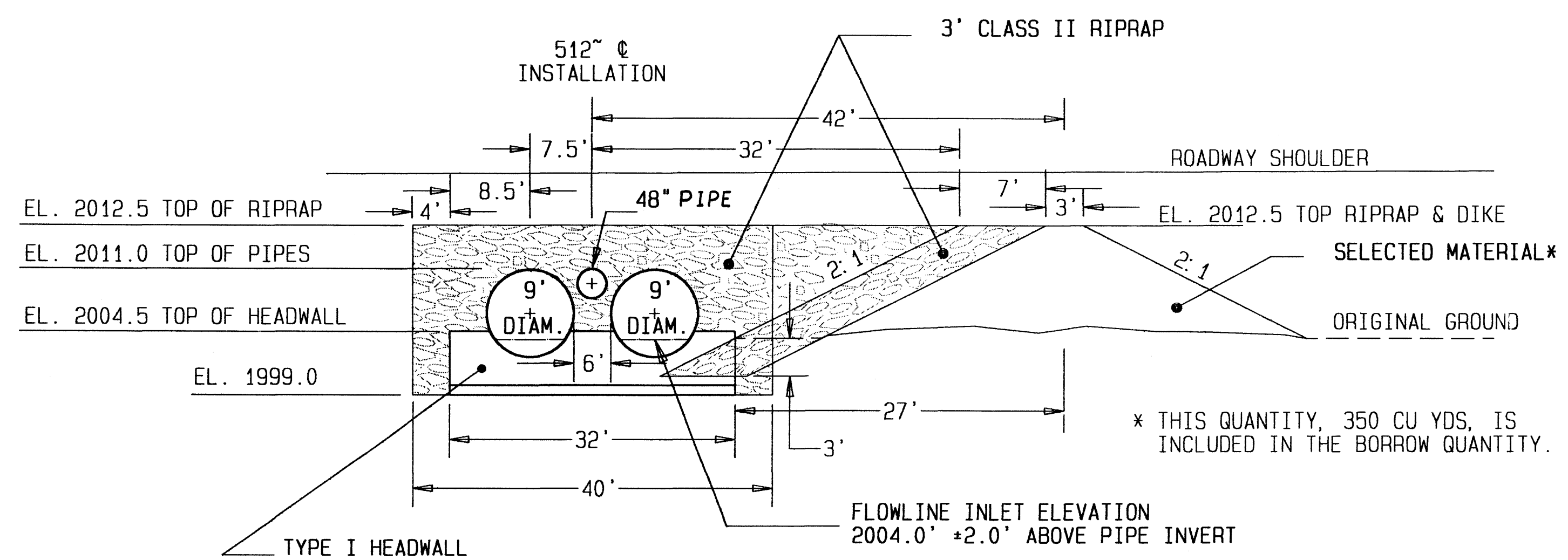
✓ SLOPE FLATTENING TYPICAL

STA. 510~ TO 514~

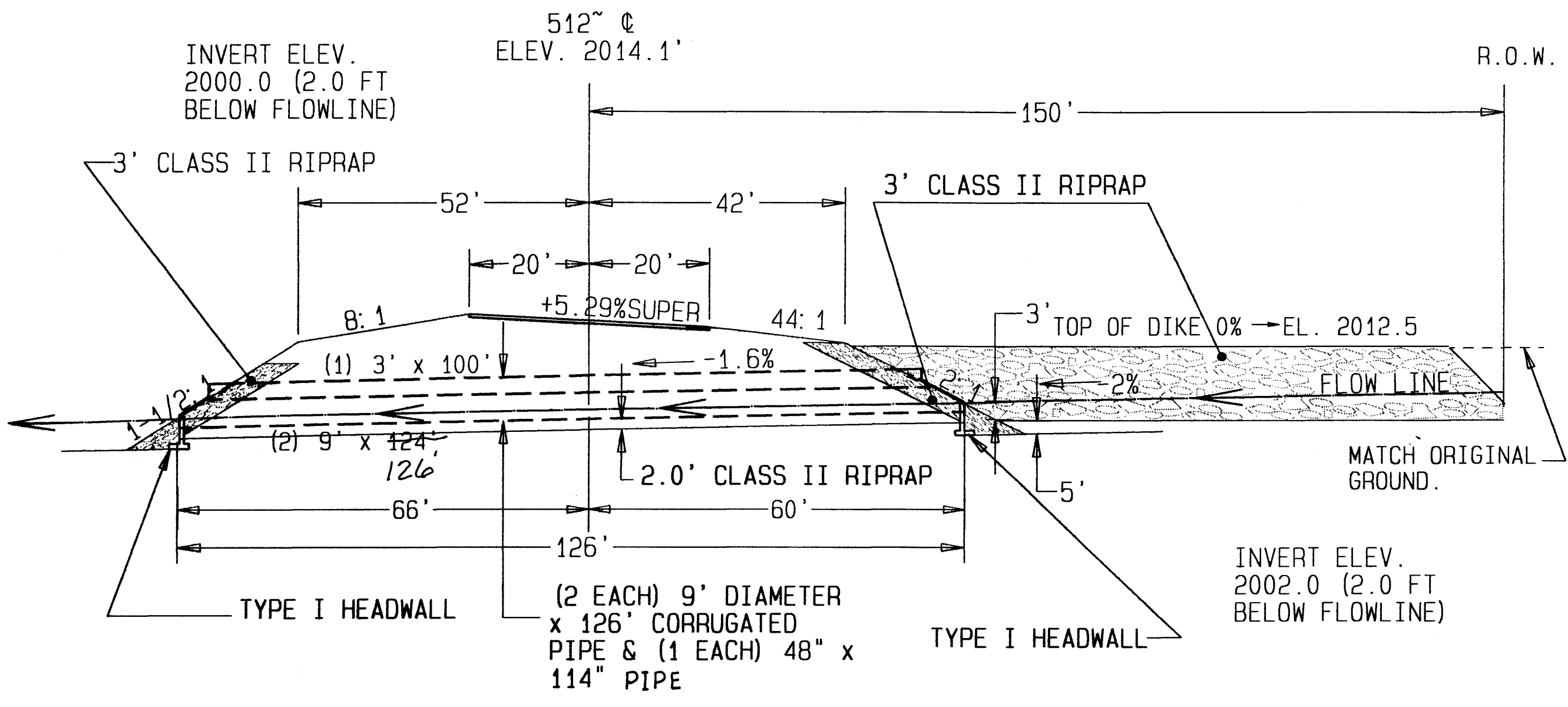


- NOTE:
- 1.) CLEAR ZONE FROM EDGE OF TRAVELLED SURFACE IS 30' ON TANGENT & INSIDE CURVES & 40' ON OUTSIDE OF CURVES.
 - 2.) SLOPE FLATTENING OUTSIDE TYPICAL LIMITS SHALL BE AT 6:1 SLOPE TO CLEAR ZONE OR AS DIRECTED BY THE ENGINEER AND SHALL SMOOTHLY TRANSITION INTO EXISTING SLOPES.
 - 3.) SLOPE FLATTENING TYPICAL EXTENDS THROUGH A CURVE WITH 6% SUPER. MINUS 2% IS NORMAL CROWN.

✓ DIKE & PIPE CROSSING INLET END VIEW

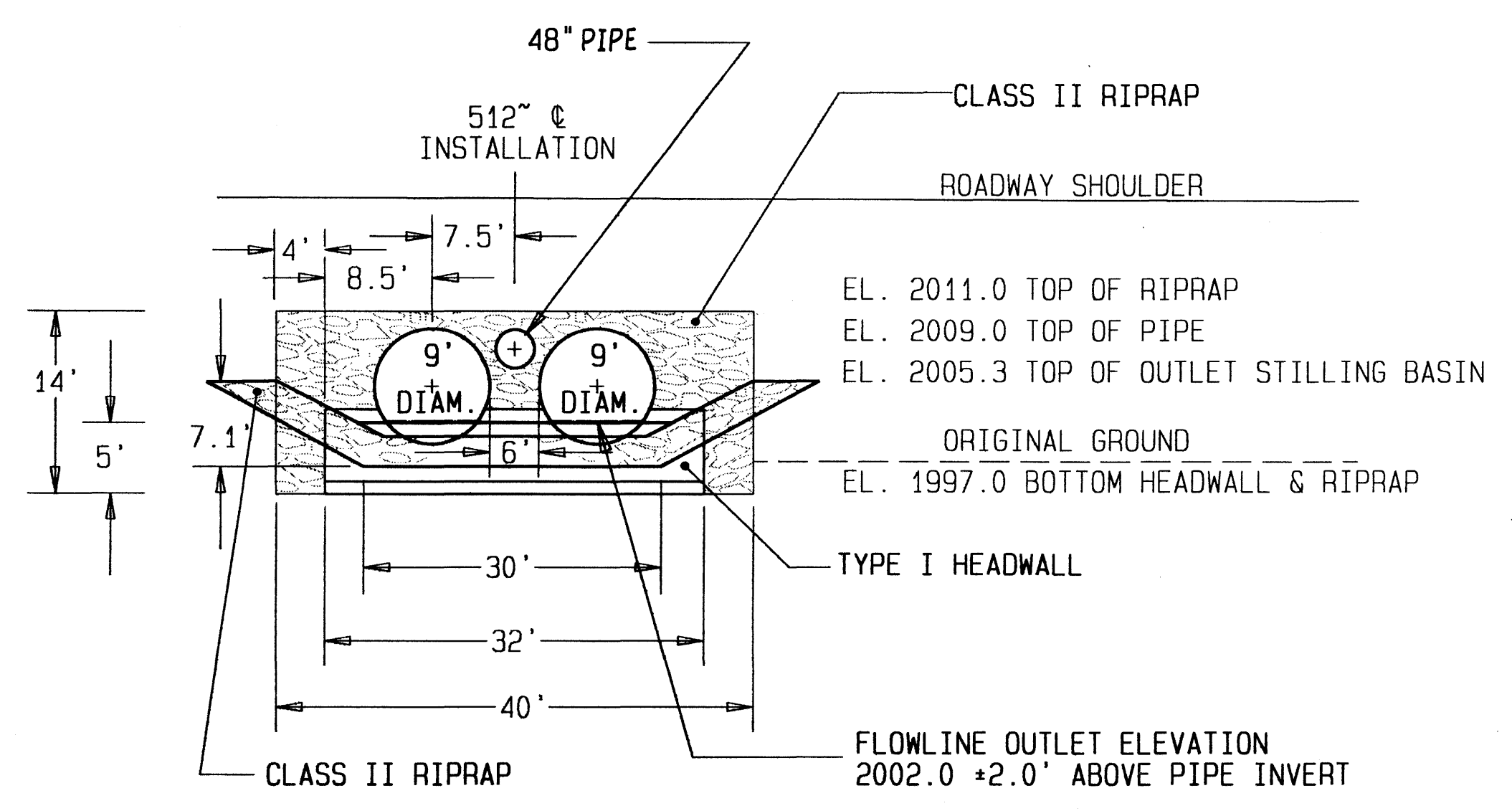


✓ SLIME CREEK DIKE SECTION

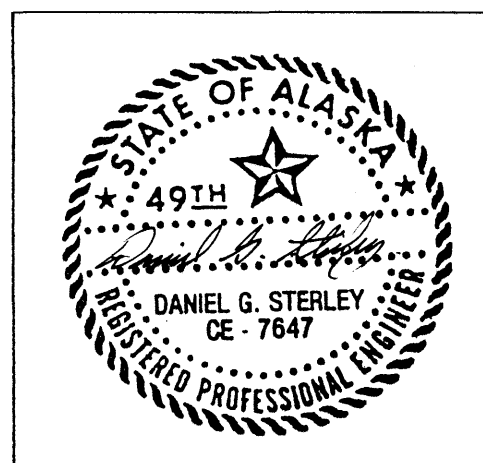


- NOTE:
- 1.) ENDS OF 9' DIAMETER PIPE SHALL BE BEVELED IN ACCORDANCE WITH STANDARD DRAWING D-07.00.
 - 2.) ENDS OF 48" PIPE SHALL BE SHOP BEVELED TO FIT SIDE SLOPES.
 - 3.) SEE STANDARD DRAWING D-30.01 FOR HEADWALL DETAILS.

✓ PIPE CROSSING OUTLET END VIEW

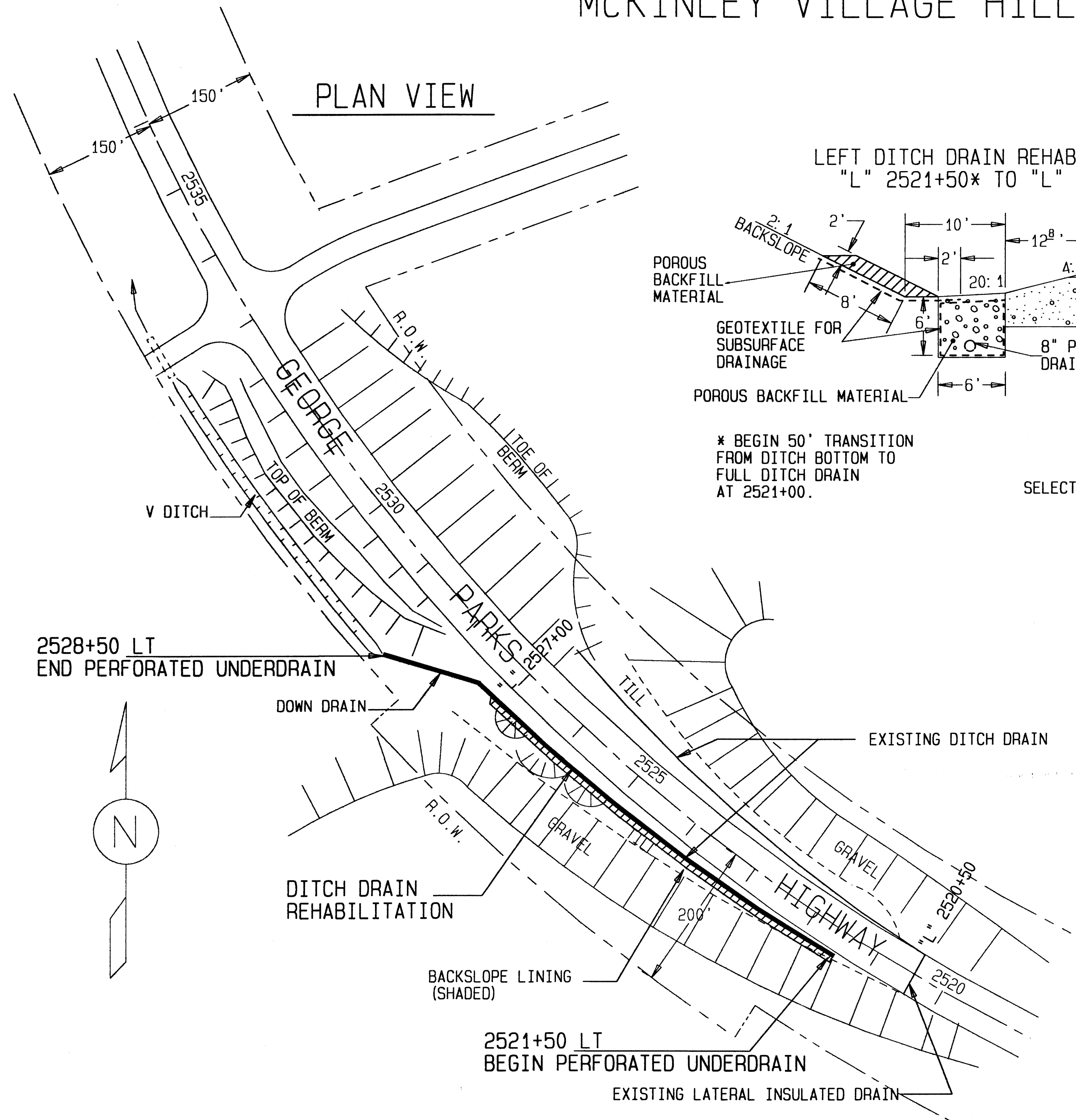


AS-BUILT



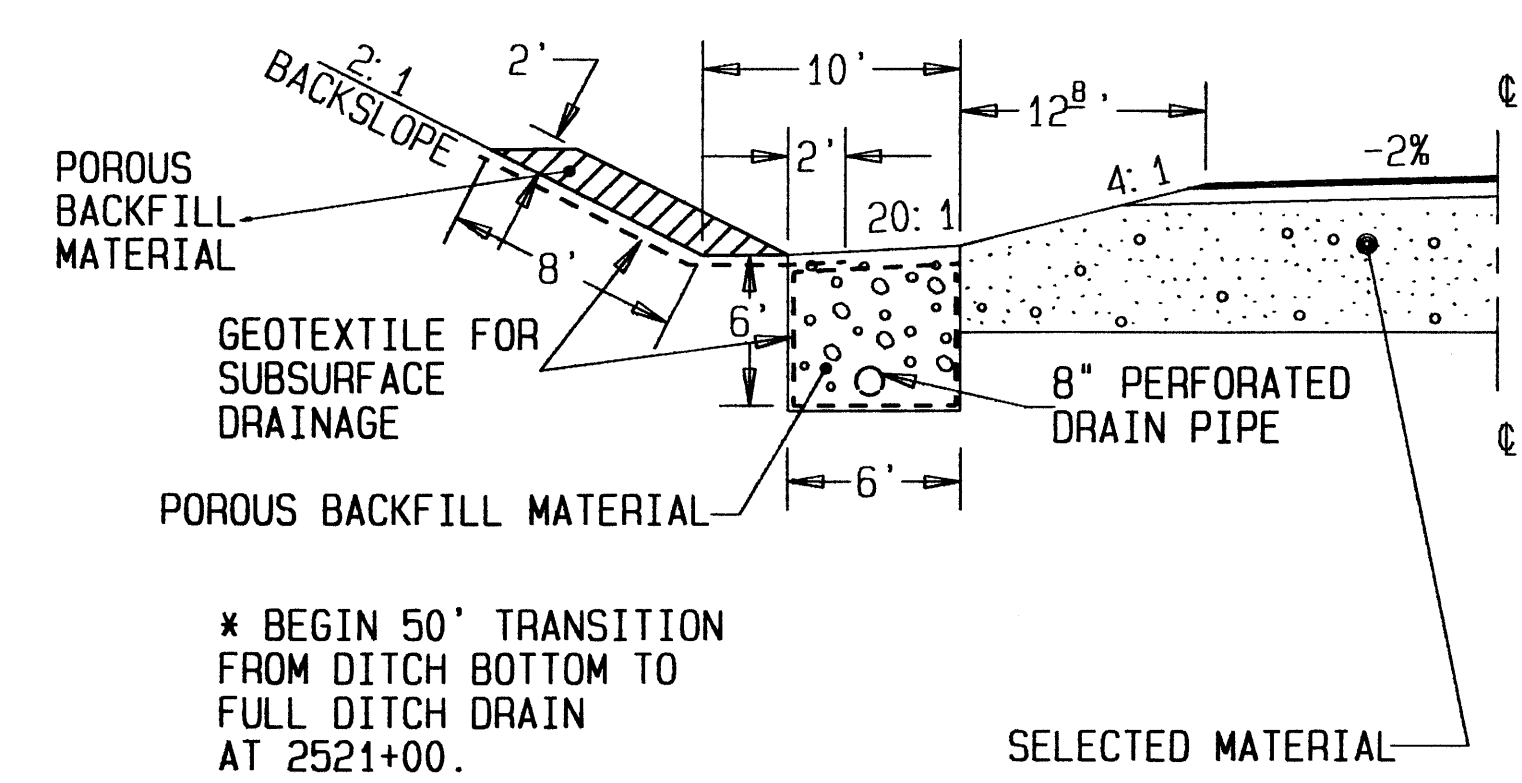
McKINLEY VILLAGE HILL DITCH DRAIN REHABILITATION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3(7)	1991	9	26

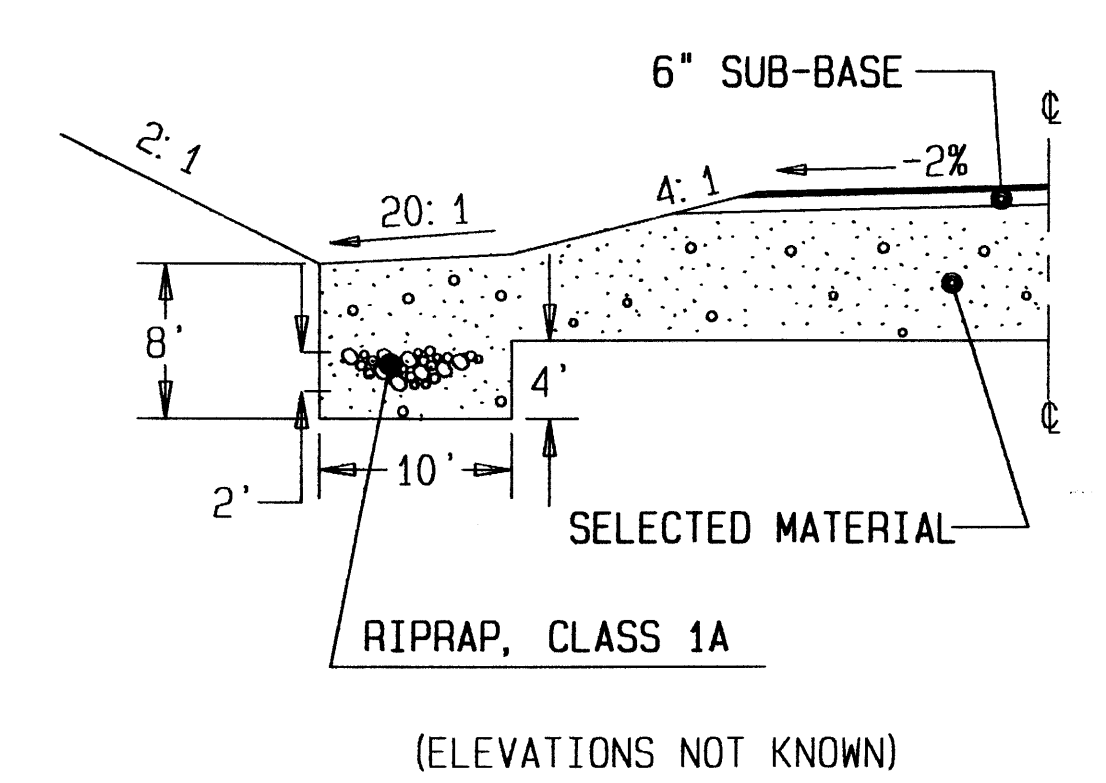


DITCH DRAIN

LEFT DITCH DRAIN REHABILITATION
"L" 2521+50* TO "L" 2527+50



EXISTING LEFT DITCH DRAIN

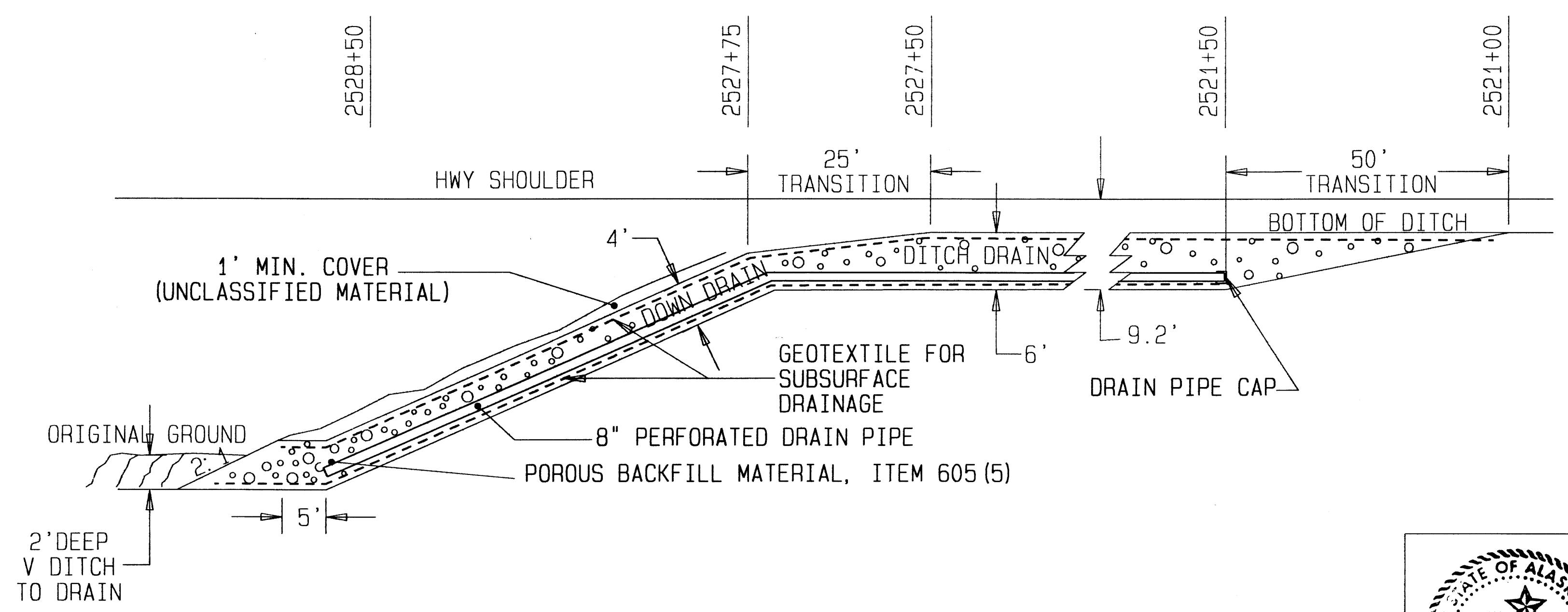


NOTES:

1. UNCLASSIFIED COVER MATERIAL OVER THE DOWN DRAIN SHALL COME FROM DOWN DRAIN EXCAVATION AND SHALL NOT BE MEASURED FOR PAYMENT.
2. DOWN DRAIN INTERCEPT STATIONING WITH EXISTING V DITCH IS APPROXIMATE. ESTABLISH DRAINAGE FROM V DITCH TO EXISTING APPROACH CULVERT AT ± 2533+20 V DITCH CONSTRUCTION FROM END OF DOWN DRAIN TO APPROACH CULVERT WILL NOT BE MEASURED FOR PAYMENT, BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 605(5).
3. BACKSLOPE LINING MATERIAL SHALL MEET THE SPECIFICATIONS FOR POROUS BACKFILL MATERIAL AND SHALL BE PAID FOR UNDER ITEM 605(5).
4. GRADING THE TOE OF BACKSLOPE TO TOP LIMITS OF BACKSLOPE LINING PLACEMENT AS SHOWN THE PLANS SHALL BE PERFORMED PRIOR TO PLACEMENT OF BACKSLOPE LINING MATERIAL. GRADING SHALL SMOOTH AND FILL IRREGULARITIES IN EXISTING BACKSLOPE. BACKSLOPE LINING MATERIAL SHALL THEN BE PLACED AND SPREAD SO THAT THE FINISHED FACE SHALL BE REASONABLY UNIFORM AND IN CONFORMANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 605(5).

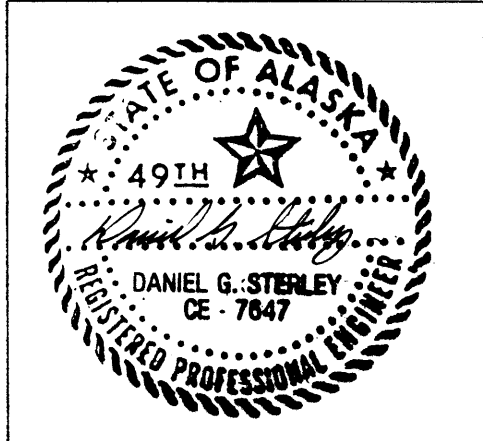
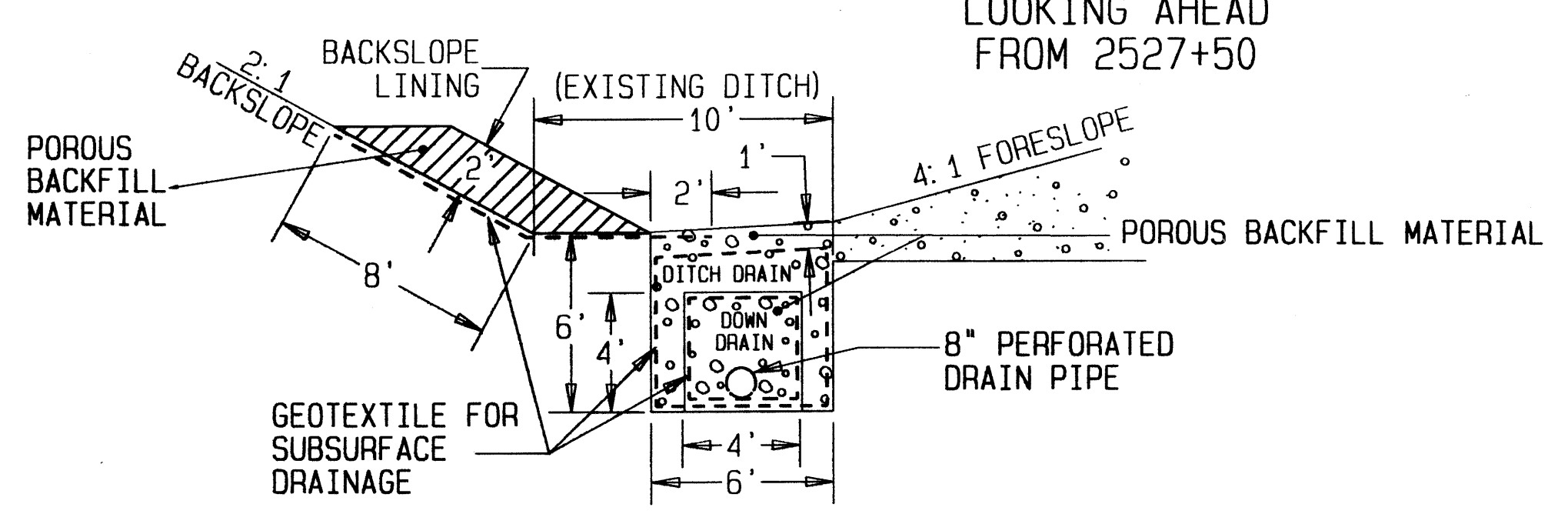
DITCH TO DOWN DRAIN TRANSITIONS

SIDE VIEW



LEFT DITCH DRAIN & DOWN DRAIN DETAIL

LOOKING AHEAD FROM 2527+50



AS-BUILT

A P P R O A C H S U M M A R Y

#	STATION	RT/LT	WIDTH FT.	RADIUS FT.	EMBANKMENT (TON)		ASPHALT TON	CULVERTS		CULVERTS REMOVE	REMARKS
					BORROW	C.A.B.C.		18"	END SECT.		
1	320+25	LT	24								*
2	325+75	LT	24								*
3	325+90	RT	32	50		100.0	33.0				*
4	339+56	RT	14	25	40.0	26.4	7.6				*
5	435+50	LT	24								*
6	441+20	LT	24								*
7	494+82	RT	14	25		5.0	7.6				*
8	498+00	LT	14	25		5.0	7.6				*
9	500+50	LT	24								*
10	500+00	LT	24								*
11	504+52	RT	14	25		5.0	7.6				*
12	508+24	LT	14	25		5.0	7.6				*
13	514+94	RT	14	25	40.0	26.4	7.6	30'	2'	EXISTING	*
14	516+00	LT	24	50	80.0	90.0	28.0				* DELETED
15	541+85	LT	24								*
16	550+00	LT	24								*
17	2016+90	RT	14	25		5.0	7.6				*
18	2061+25	LT	24								*
19	2065+80	LT	24								*
20	2092+75	RT	14	25		5.0	7.6				*
21	2140+60	LT	14	25		5.0	7.6				*
22	2151+85	LT	24	25		6.0	10.6				*
23	2154+80	LT	24	25		6.0	10.6				*
24	2158+75	RT	24	25	430.0	5.0	7.6			6:1 SLOPE ON SO. RAD.	*
25	2161+40	RT	24	25	130.0	6.0	10.6			SEE NOTE NO. 4	*
26	2162+50	LT	14	25		5.0	7.6				* NEW APPROACH
27	2164+50	RT	24	25		6.0	10.6				* NEW APPROACH
28	2177+80	RT	14	25		5.0	7.6				*
29	2181+80	RT	14	25		5.0	7.6				*
30	2183+80	LT	14	25	40.0	26.4	7.6	30'	2'	EXISTING	*
31	2184+20	RT	14	25		5.0	7.6				*
32	2201+00	LT	24								* NEW TOURIST TURNOUT
33	2205+00	LT	24								* EXISTING APPROACH
34	2321+25	RT	14	25		5.0	7.6				*
35	2328+00	RT	14	25		5.0	7.6				*
36	2333+20	RT	14	25		5.0	7.6				* NEW APPROACH
37	2334+80	RT	14	25		5.0	7.6				*
38	2341+50	RT	14	25		5.0	7.6				*
39	2358+20	RT	14	25		5.0	7.6				*
40	2358+75	LT	14	25		5.0	7.6				*
41	2380+65	RT	14	25		5.0	7.6				*
42	2380+65	LT	14	25		5.0	7.6				*
43	2372+80	LT	14	25		5.0	7.6				*
44	2411+35	RT	14	25		5.0	7.6				*
45	2417+00	RT	14	25	26.4	7.6	7.6	34'	2'	EXISTING	*
46	2417+25	RT	14	25	26.4	7.6	7.6	34'	2'		*
47	2421+00	RT	24	25		26.4	7.6	30'	2'		*
48	2421+20	RT	24	25	40.0	26.4	7.6	30'	2'		*
49	2425+00	RT	24	50	80.0	89.9	27.8	30'	2'	EXISTING	*
50	2427+00	RT	24	50	80.0	89.9	27.8	30'	2'		* DELETED
51	2427+00	LT	14	25	40.0	26.4	7.6	30'	2'	EXISTING	*
52	2429+00	LT	14	25		5.0	7.6				*
53	2431+00	RT	24	50		10.0	27.8				*
54	2431+00	LT	24	50		10.0	27.8				*
55	2434+00	RT	14	25	40.0	26.4	7.6	30'	2'		*
56	2435+00	LT	24	50		10.0	27.8				*
57	2431+34	LT	14	25							* NEW APPROACH

54A

A P P R O A C H S U M M A R Y

#	STATION	RT/LT	WIDTH FT.	RADIUS FT.	EMBANKMENT (TON)		ASPHALT TON	CULVERTS		CULVERTS REMOVE	REMARKS	
					BORROW	C.A.B.C.		18"	END SECT.			
57	2438+40	RT	14	25	40.0	26.4	7.6	30'	2'		*	
58	2440+40	RT	14	25	40.0	26.4	7.6	30'	2'		*	
59	2440+40	LT	14	25	40.0	26.4	7.6	30'	2'	EXISTING	*	
60	2440+40	LT	14	25	40.0	26.4	7.6	30'	2'	EXISTING	*	
61	2448+50	RT	14	25	40.0	26.4	7.6	30'	2'		*	
62	2448+50	LT	14	25		5.0	7.6	30'	2'		*	
63	2450+50	LT	14	25	40.0	26.4	7.6	30'	2'		*	
64	2460+10	RT	14	25		5.0	7.6				*	
65	2461+50										* SEE TOURIST TURNOUT SUMMARY	
66	2464+00										*	
67	2471+70	RT									* DELETED	
68	2476+90	RT	24	40	1200.0	66.1	20.1				* OBLITERATE/RELOCATE TO 2476+90	
69	2533+36	RT	24	50		10.0	27.8				* NEW APPROACH	
70	2533+36	LT	24	50		10.0	27.8				*	
71	2+10	RT	24	25	70.0						* UNPAVED NEW APPROACH	
SUBTOTALS					2,550	1035.9	629.7	488 518	32	30-	8	

T O U R I S T T U R N O U T S U M M A R Y

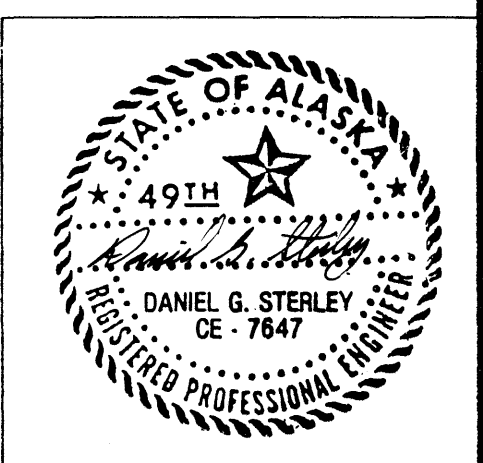
STATION	RT/LT	EMBANKMENT (TON)		ASPHALT TON	CULVERTS		CULVERTS REMOVE	REMARKS
		BORROW	C.A.B.C.		18"	END SECT.		
323+00	LT			170.5				
438+00	LT			154.0				
503+00	LT			144.8				
550+50	LT		1,762	557.3				OLD DENALI
2063+00	LT			143.0				
2203+00	LT	2500	600	201.0				* DELETED
2463+00	LT			161.3				
SUBTOTALS		2,500	2,362	1,531.9				

TOTALS	5,050	3,397.9	2,161.6	488 518	30' 32	8
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NOTE :

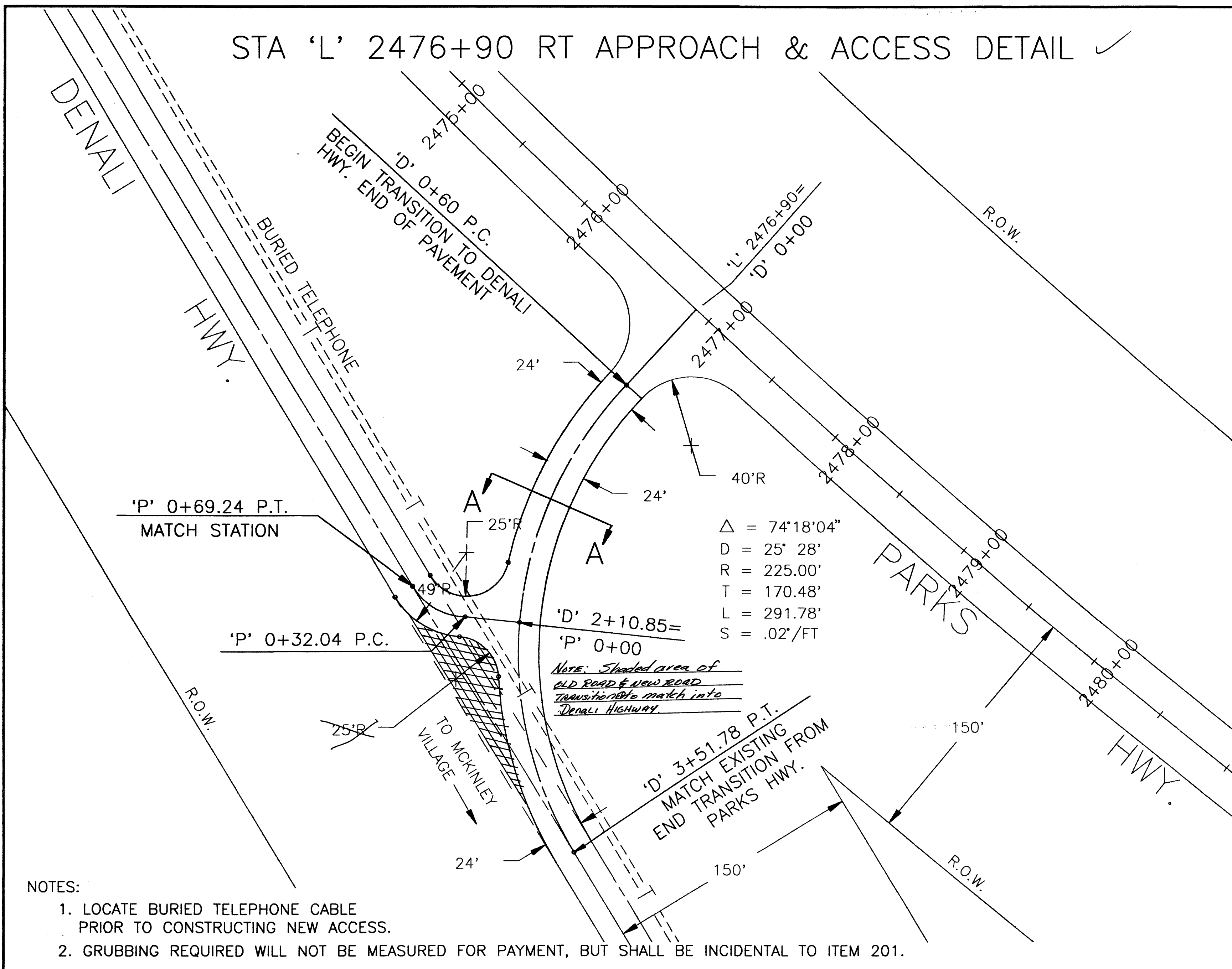
- STATIONING NOTED ON SUMMARIES IS TO CENTERLINE OF APPROACH.
- C.A.B.C. = CRUSHED AGGREGATE BASE COURSE.
- OBLITERATION OF EXISTING APPROACH AT 2471+70 SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 639(1).
- BORROW QUANTITY FOR APPROACHES AT 2158+75 AND 2161+40 INCLUDES MATERIAL TO FILL HOLES AND IRREGULARITIES AT TOE OF SLOPE

* NEW APPROACH OR EXISTING SUBSTANDARD APPROACH TO BE UPGRADED. TOTAL APPROACHES TO BE PAID FOR UNDER ITEM 639(1) IS 70.
71



AS-BUILT

STA 'L' 2476+90 RT APPROACH & ACCESS DETAIL ✓



- NOTES:
1. LOCATE BURIED TELEPHONE CABLE PRIOR TO CONSTRUCTING NEW ACCESS.
 2. GRUBBING REQUIRED WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 201.

$$\Delta = 74^{\circ}18'04''$$

$$D = 25' 28''$$

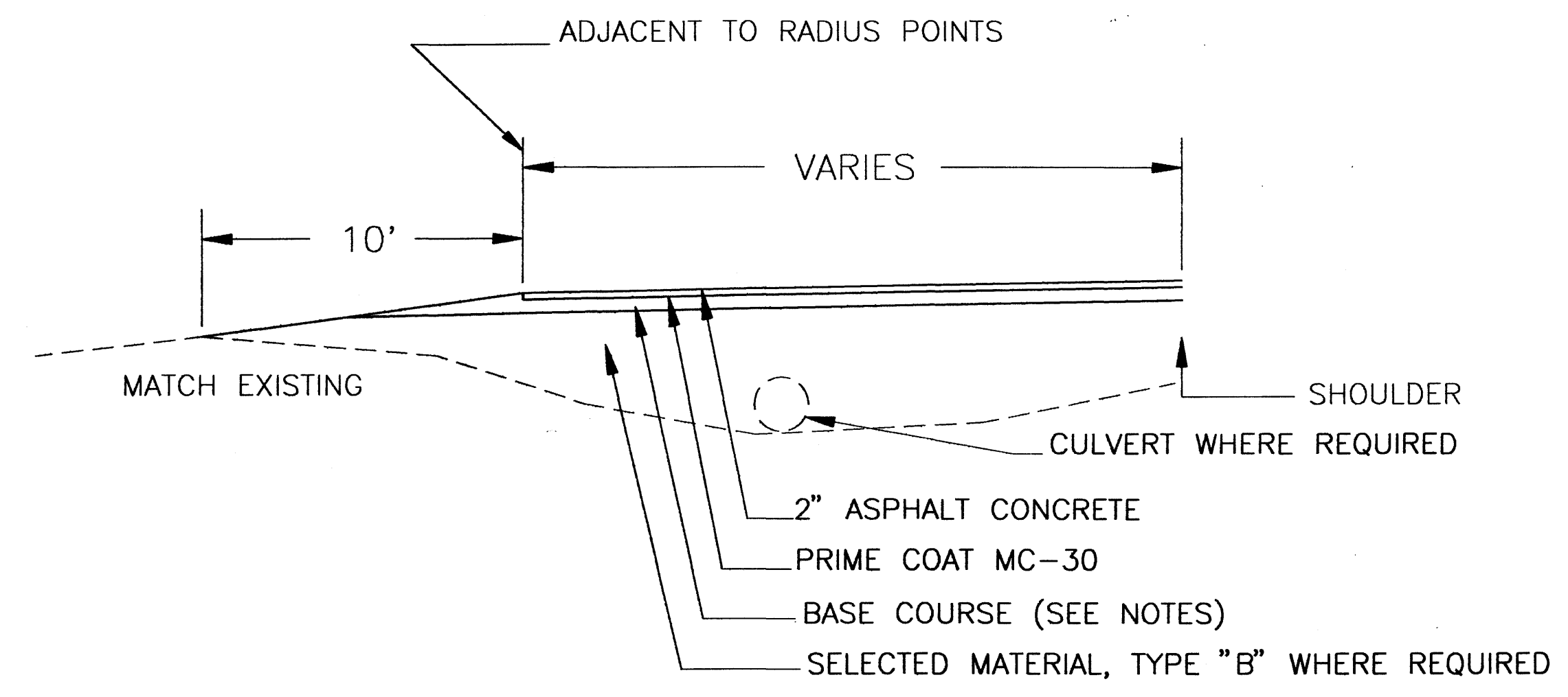
$$R = 225.00'$$

$$T = 170.48'$$

$$L = 291.78'$$

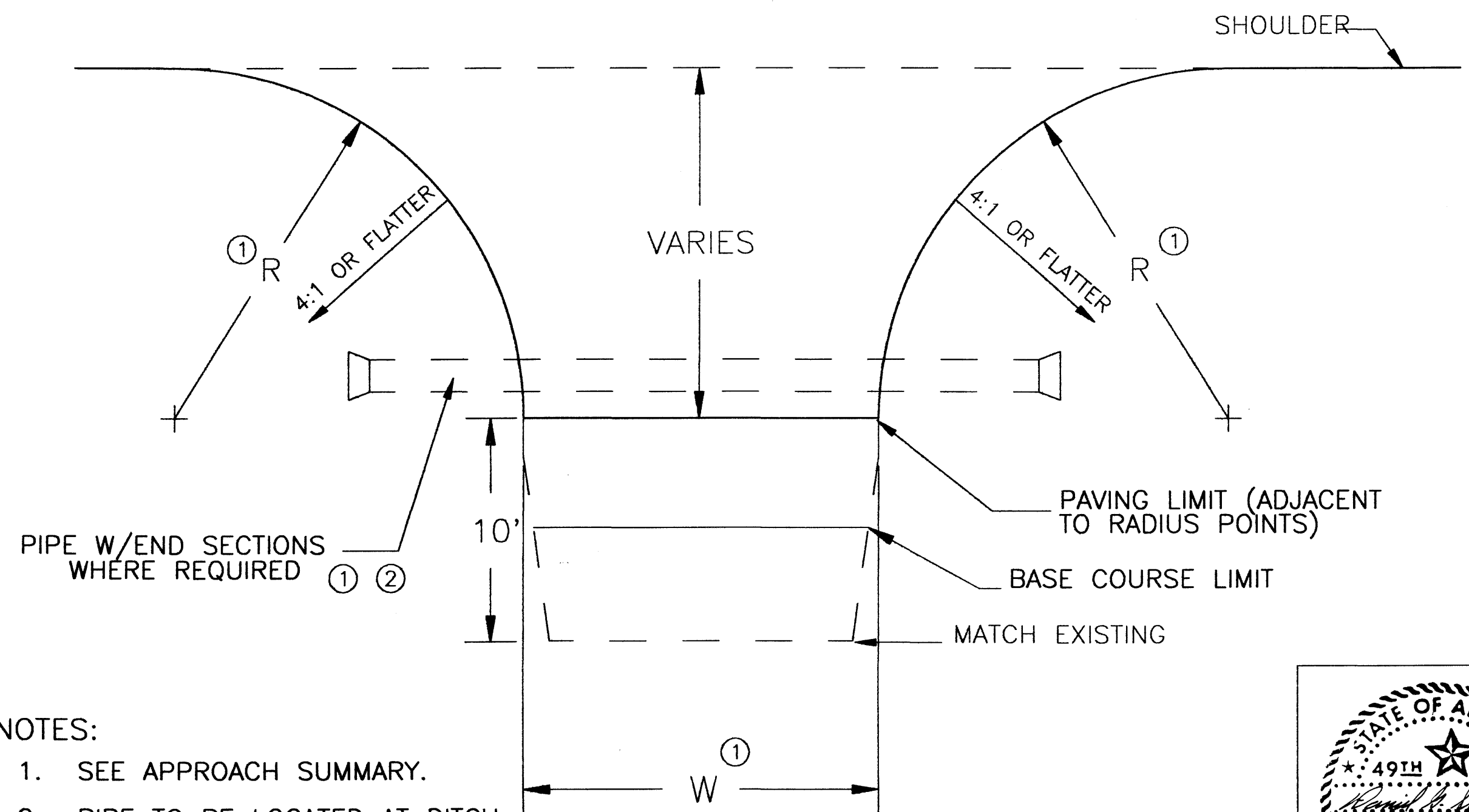
$$S = .02'/FT$$

APPROACH TYPICAL ✓



- NOTES:
1. 6" BASE COURSE IF EXISTING APPROACH IS UNPAVED, SUBSTANDARD APPROACH. SEE APPROACH SUMMARY.
 2. IF APPROACH IS PAVED, BASE COURSE WILL BE PREPARED SAME AS ROADWAY. ADDITIONAL BASE COURSE MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

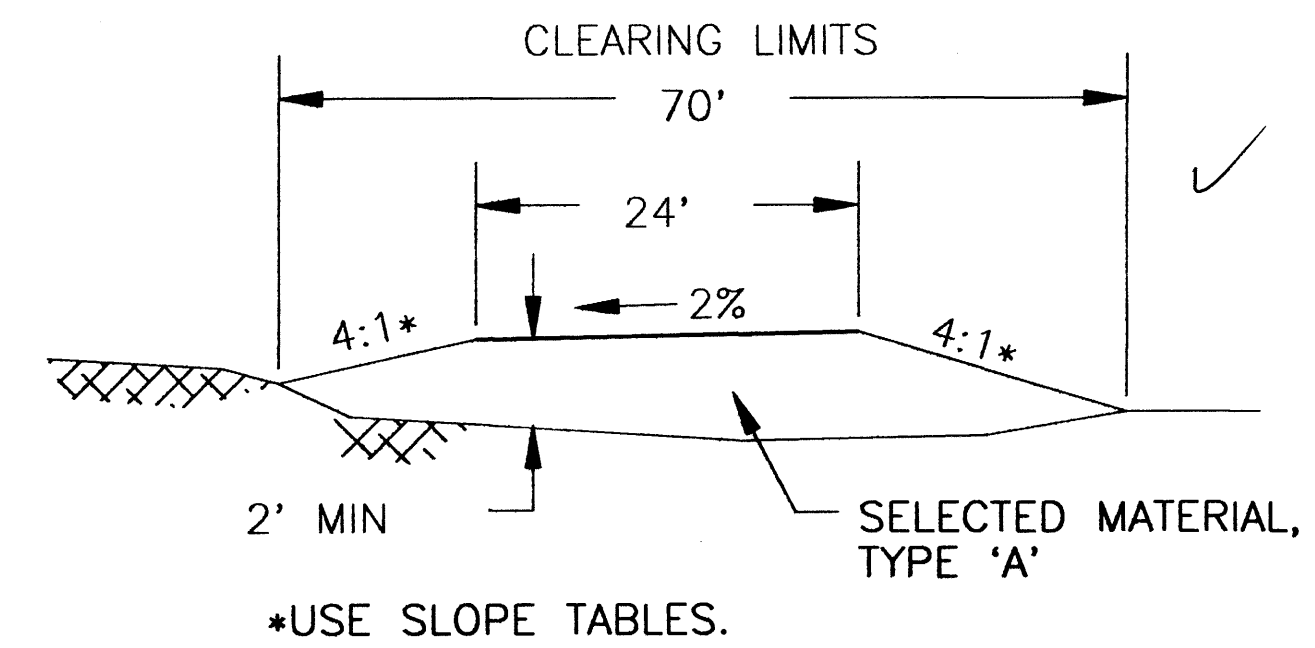
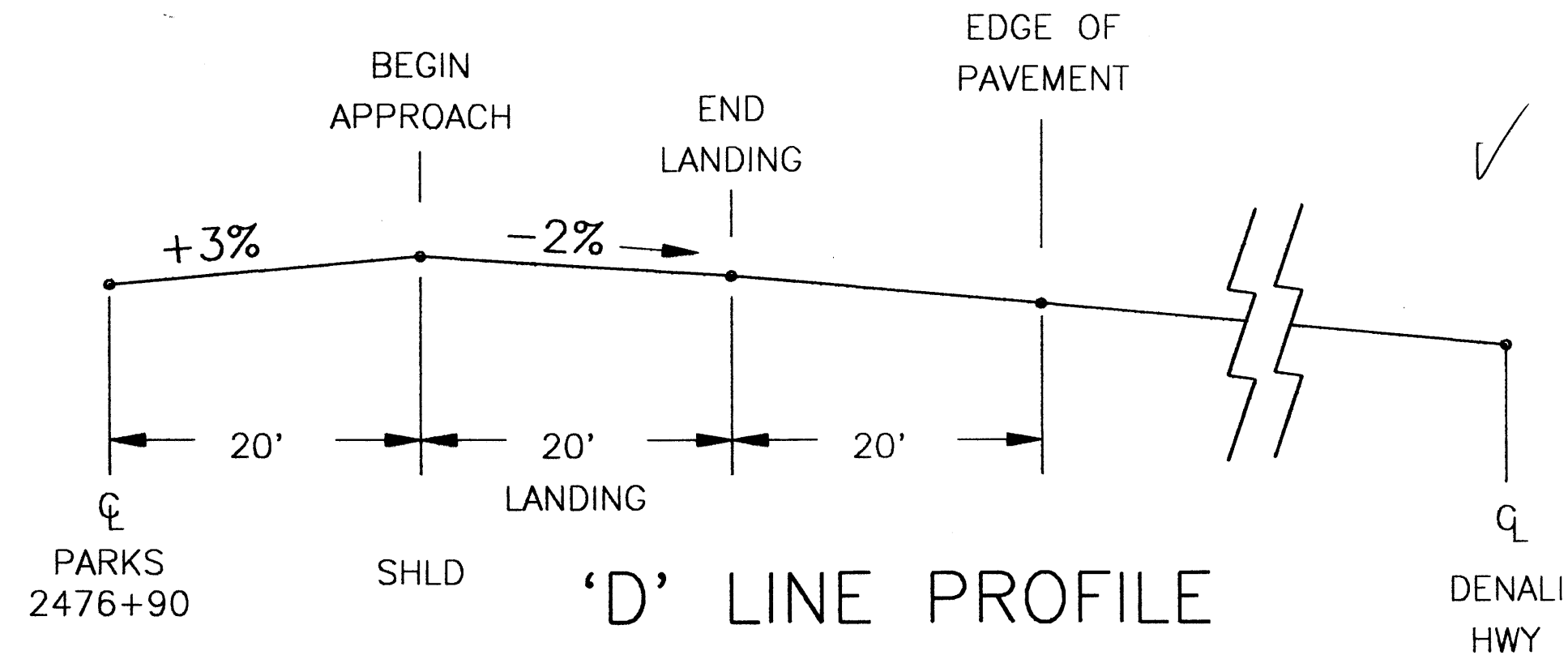
APPROACH DETAIL ✓



- NOTES:
1. SEE APPROACH SUMMARY.
 2. PIPE TO BE LOCATED AT DITCH LINE. REGRADE DITCH TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY ENGINEER.



AS-BUILT

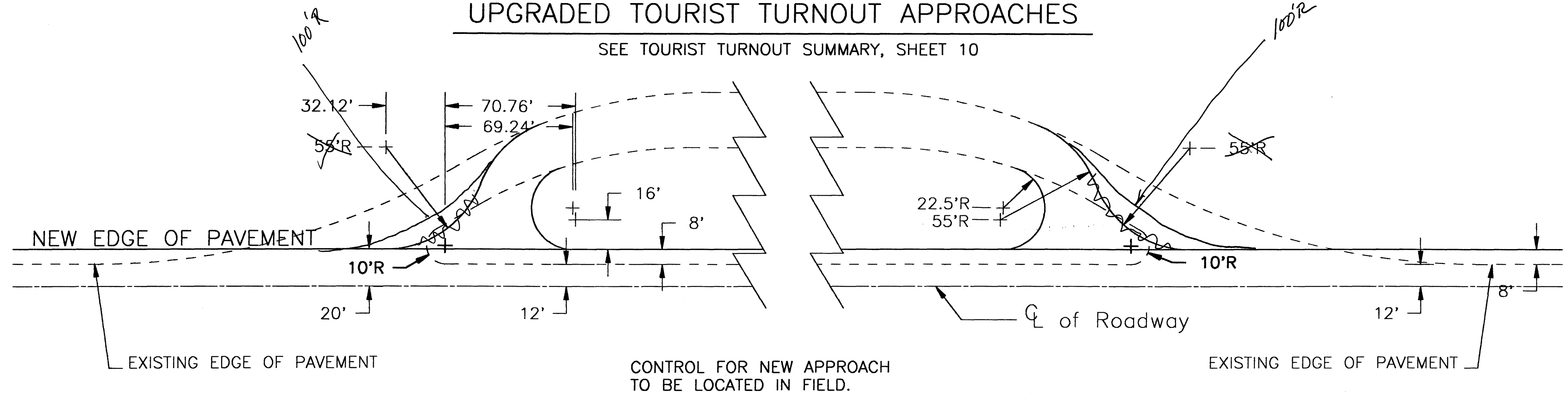


SECTION A - A

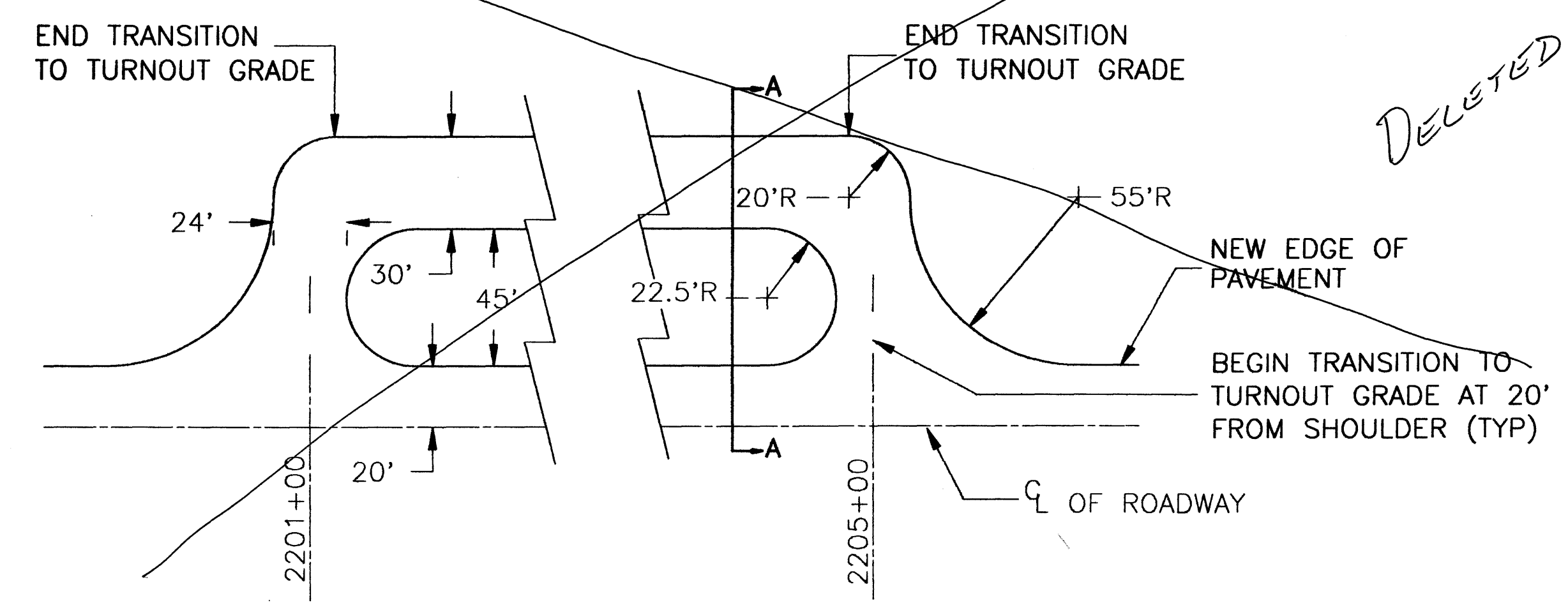
STATE	PROJECT DESIGNATION	YEAR	SHEET #	TOTAL SHEETS
ALASKA	I-OA4-3(7)	1991	12	26

UPGRADED TOURIST TURNOUT APPROACHES

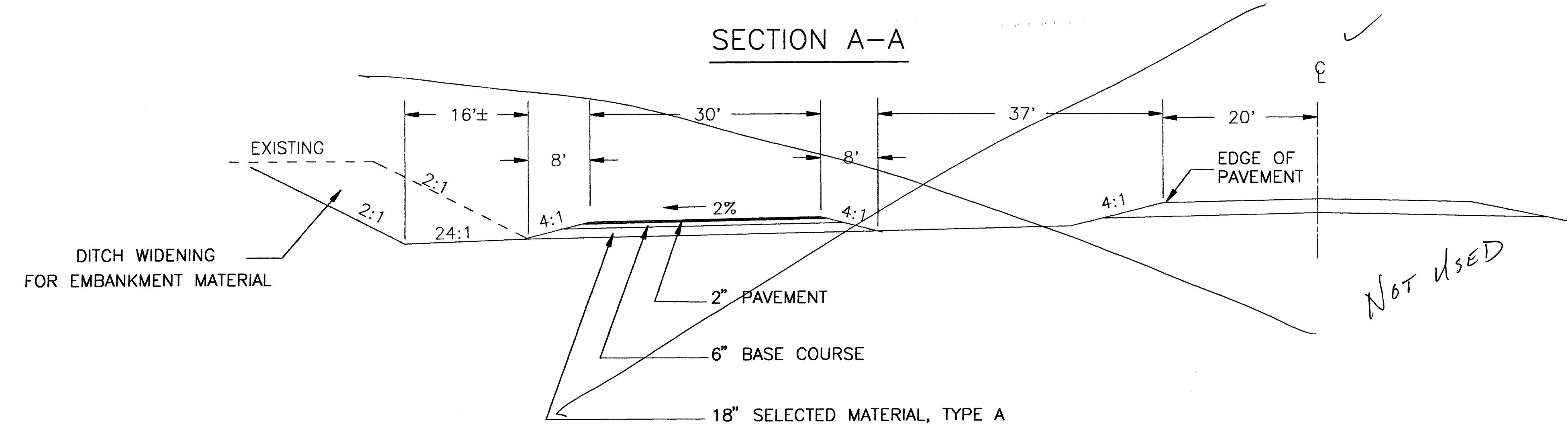
SEE TOURIST TURNOUT SUMMARY, SHEET 10



NEW TOURIST TURNOUT AT STATION 'O' 2203+00 LT



SECTION A-A



TURNOUT NOTES:

- ✓ 1. EXISTING PAVED TOURIST TURNOUT APPROACHES SHALL BE UPGRADED UNDER APPROACHES, ITEM NO. 639(1). EXISTING PAVEMENT AND BASE COURSE MATERIALS SHALL BE STOCKPILED AND REUSED AS BASE COURSE MATERIALS IN THE NEW APPROACH. OTHER WORK SHALL BE PAID FOR UNDER RESPECTIVE ITEMS.
- ✓ 2. EXCESS EXCAVATED MATERIALS FROM TURNOUT APPROACH UPGRADE SHALL BE USED IN SLOPE FLATTENING AT THE TURNOUT OR AS DIRECTED BY THE ENGINEER.
3. APPROACHES FOR NEW TOURIST TURNOUTS AT "L" 550+00 LT AND 'O' 2203+00 LT. WILL BE MEASURED FOR PAYMENT UNDER APPROACHES ITEM NO. 639(1). ALL MATERIALS USED IN THE CONSTRUCTION OF THE TOURIST TURNOUTS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS. *DELETED*
- ✓ 4. THE EXISTING TRUCK TURNOUT WIDENING AT 'O' 2232+05 SHALL BE OBLITERATED. EXISTING PAVEMENT AND BASE COURSE SHALL BE SALVAGED AND USED IN THE ROADWAY.
- ✓ 5. LAYOUT OF THE UPGRADED TOURIST TURNOUT APPROACHES WILL BE DETERMINED BY EXISTING 10' RADIUS POINT. MINOR ADJUSTMENT MAY BE REQUIRED TO MATCH EXISTING TURNOUT APPROACHES AS REQUIRED BY THE ENGINEER.
6. EXCAVATION OF THE BACK SLOPE IN DITCH WIDENING AREA FOR EMBANKMENT MATERIAL FOR TURNOUT AT 'O' 2203+00 LT SHALL BE PAID FOR UNDER ITEM 203(3). CLEARING AND GRUBBING REQUIRED TO OBTAIN MATERIAL AT DITCH WIDENING FOR THE TURNOUT SHALL NOT BE CONSIDERED INCIDENTAL TO ITEM 203(3), UNCLASSIFIED EXCAVATION. *DELETED T.T.O. AT 'O' 2203 LT.*



AS-BUILT

CLEARING SUMMARY

CLEARING SUMMARY FOR TYPICAL CLEARING 30' FROM SHOULDER ✓

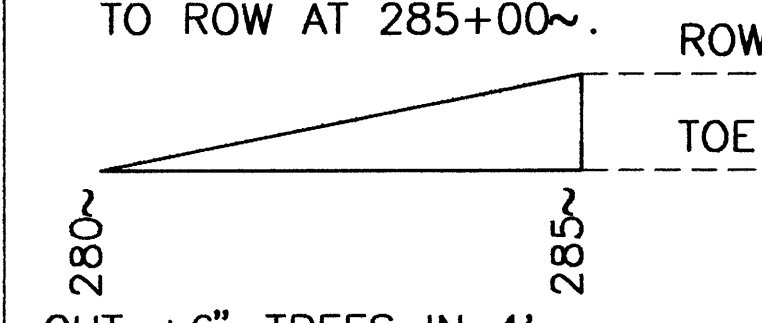
BEGIN	END	LENGTH	BEGIN	END	LENGTH	BEGIN	END	LENGTH
305+00 RT	310+00 RT	300' ↗	2118+00 LT	2121+00 LT	3,200' ^{320'}	2365+00 RT	2366+00 RT	100'
314+00 RT	317+00 RT	500' ↘	2128+00 LT	2144+00 LT	1,600' *	2475+00 RT	2485+00 RT	1,000'
316+00 LT	321+00 LT	500'	2142+50 RT	2159+00 RT	1,650'	2518+00 LT	2520+00 LT	200'
329+00 LT	339+00 LT	1,000'	2154+00 LT	2160+00 LT	600'	2525+00 RT	2526+50 RT	150'
338+00 RT	340+00 RT	200'	2060+00 LT	2061+50 LT	150'			
342+00 RT	348+00 RT	600'	2161+00 LT	2185+00 LT	2,400'			
350+00 RT	354+00 RT	400'	2165+00 RT	2173+00 RT	800'			
363+00 RT	367+00 RT	400'	2197+00 RT	2199+50 RT	250'			
368+00 LT	382+00 LT	950' *	2205+50 LT	2217+50 LT	1,200'			
373+00 RT	390+00 RT	1,700'	2225+00 RT	2232+00 RT	700'			
395+00 RT	397+00 RT	200'	2225+00 LT	2234+00 LT	900'			
418+00 RT	428+00 RT	1,000'	2239+00 RT	2245+00 RT	600'			
424+00 LT	436+00 LT	1,200'	2249+00 LT	2256+00 LT	700'			
430+00 RT	450+00 RT	2,000'	2246+00 RT	2248+00 RT	200'			
453+00 LT	465+00 LT	1,200'	2252+00 RT	2254+00 RT	200'			
453+00 RT	457+00 RT	400'	2257+00 LT	2263+00 LT	600'			
465+00 RT	471+00 RT	600'	2265+50 LT	2276+00 LT	1,050'			
473+00 LT	476+00 LT	300'	2278+00 LT	2283+50 LT	550'			
502+50 LT	504+50 LT	200'	2281+00 RT	2282+00 RT	100'			
540+00 LT	541+00 LT	100'	2331+00 LT	2232+50 LT	150'			
2059+00 RT	2062+00 RT	300'	2331+00 RT	2333+00 RT	200'			
2093+00 RT	2125+00 RT	3,200'	2352+00 LT	2358+00 LT	500'			

SUBTOTAL FT = 34,200

SUBTOTAL ACRES = 24

* EQUATION STATION

SPECIAL CLEARING SUMMARY ✓

BEGIN	END	LENGTH	ACRES	REMARKS
280+00 LT	285+00 LT	500'	0.7	BEGIN TAPER AT TOE OF SLOPE 280+00~ WIDEN TO ROW AT 285+00~.  CUT +6" TREES IN 4' LENGTHS AND STACK.
285+00 LT	301+00 LT	1,600'	4.5	BEGIN FULL WIDTH CLEARING FROM TOE OF SLOPE TO ROW.
321+00 LT	326+50 LT	550'	0.38	CLEAR 30' FROM OUTSIDE SHOULDER OF TOURIST TURNOUT.
500+00 LT	506+00 LT	600'	0.4	CLEAR 30' FROM OUTSIDE SHOULDER OF TOURIST TURNOUT.
512+00 RT	513+00 RT	100'	0.3	CLEAR AS DIRECTED BY THE ENGINEER, 90' FROM TOE OF SLOPE TO ROW FOR DIKE INSTALLATION & RE-ESTABLISH FLOWLINE. HAND CLEAR +6' AND STACK.
511+50 LT	512+50 LT	100'	0.3	CLEAR AS DIRECTED BY THE ENGINEER 90' FROM TOE OF SLOPE AS NEEDED FOR DRAIN-AGE IMPROVEMENTS. CUT +6" TREES IN 4' LENGTHS & STACK.
541+00 LT	561+00 LT	2,000'	1.9	CLEAR 30' RT & 10' LT OF EXISTING SECTION OF OLD DENALI HIGHWAY.
2476+90 RT	OLD DENALI HIGHWAY	250'	.5	TOE OF PARKS HWY TO OLD DENALI ALONG 'D' LINE. 70 FT. WIDTH

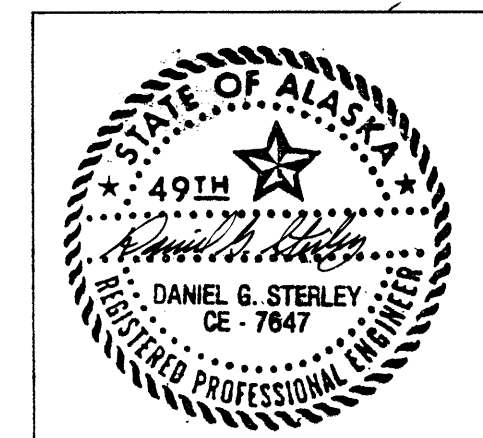
SUBTOTAL SPECIAL CLEARING = ~9 ✓

SUBTOTAL TYPICAL CLEARING = 24 ✓

TOTAL ACRES CLEARING = 33 ✓

SEEDING SUMMARY

STATION	LT/RT	POUNDS OF SEED	REMARKS
411~ TO 422~	RT	110	SEED WASTE & SLOPE FLATTENING AREAS
510~ TO 537~	LT & RT	222	SEED SLOPE FLATTENING, GRADE RAISE, FORESLOPES, & DIKE @ SLIME CREEK.
2061~	LT & RT	3	SEED SLOPE FLATTENING TO TOP OF HEADWALL.
2066~ TO 2096	LT	40	SEED SLOPE FLATTENING AREAS
2132+78	LT & RT	3	SEED SLOPE FLATTENING TO TOP OF HEADWALL.
2156~ TO 2165~	LT & RT	72	SEED CARLO CREEK FORESLOPES, SLOPE FLATTENING.
2526~ TO 2533~	LT & RT	150	SEED SLOPE FLATTENING & DOWN DRAIN.
TOTAL =		750 600 LBS *	* Additional Seed used on other disturbed areas throughout project.



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CULVERT SUMMARY

STATION	CULVERTS					CULVERT MARKERS	END SECTIONS	REMARKS
	18"	24"	48"	108"	36"			
421+00 511+93				108"	36"	2 ✓	SEE STANDARD DRAWING D-07.00	ADDED TO EXISTING 36" PIPE INSTALL TYPE I HEADWALL, REMOVE EXISTING HEADWALL & PIPE
512+07				108"	36"	2 ✓		
512+00			112"	112"				SHOP BEVEL ✓
514+50-45	30"						2 ✓	RT APPROACH
528+00 ⁰⁵ 2107+45		30"				2 ✓		REMOVE EXISTING REMOVE EXISTING
2183+00 2+90	30"						2 ✓	LT APPROACH
2417+00 16+55	34"						2 ✓	RT APPROACH
2417+50-15	34"						2 ✓	RT APPROACH
2421+75 2434+58 2437+48	30"						2 ✓	RT APPROACH
2424+00 3+80	40"						2 ✓	RT APPROACH
2425+65 75	40"						2	RT APPROACH
2427+00	30"	DELETED					2	RT APPROACH
2427+00	30"	DELETED					2	LT APPROACH
2434+00 32	30"						2 ✓	RT APPROACH
2438+10 30	30"						2 ✓	RT APPROACH
2440+50 2+15	30"						2 ✓	RT APPROACH
2441+00 7+08	30"						2 ✓	LT APPROACH
2445+00 4+10	30"						2 ✓	LT APPROACH
2448+50 2 2448+87	30"						2 ✓	RT APPROACH LT APPROACH
2450+50 75	30"						2 ✓	LT APPROACH
TOTAL	488 578	70 158	112 114	252	10'	6-9	37-34	

* INSTALL 3/4" THAW PIPE.

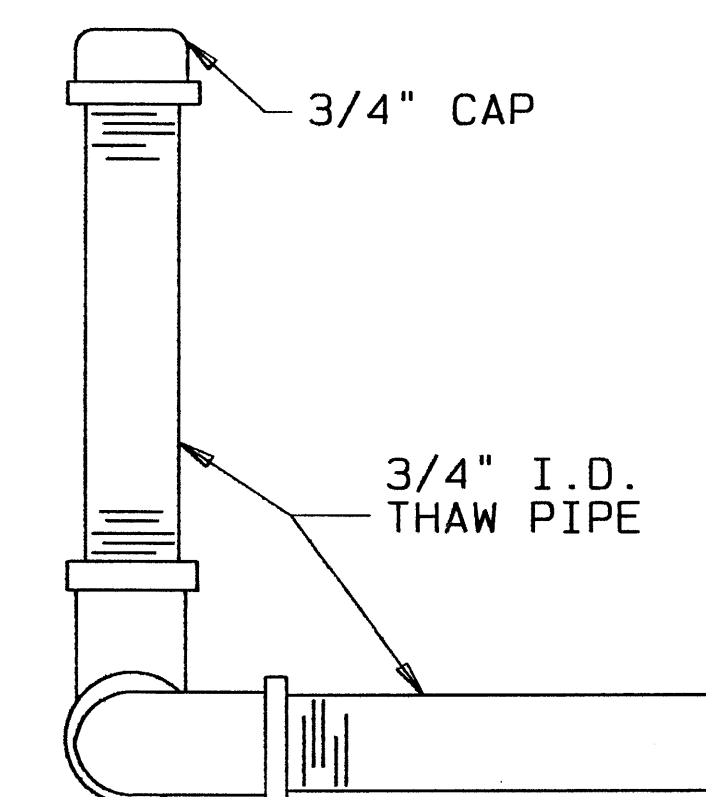
MONUMENT SUMMARY

STATION	DESCRIPTION	MONUMENT	MONUMENT CASE
512+82.45 @ C	CORNER #1 USS 4398 PLO 1550	RAILROAD SPIKES BELOW TOP OF EXISTING PAVEMENT	NO ✓
512+82.45 RIGHT 101.09 FEET	W.C. TO CORNER #1 USS 4398, PLO 1550	BRASS CAP	YES ✓
2089+00 AT C	CORNER #1 USS 5592	RAILROAD SPIKE BELOW TOP OF EXISTING PAVEMENT	NO ✓
2094+92.00 AT C	CORNER #2, USS 5592	RAILROAD SPIKE BELOW TOP OF PAVEMENT	NO ✓
2533+45.50 RIGHT 57.8 FEET	CORNER #6, USS 5566, JACK NEISLAND ENTRYMAN	BRASS CAP	YES ✓
TOTAL		5 ✓	2 ✓

NOTES:

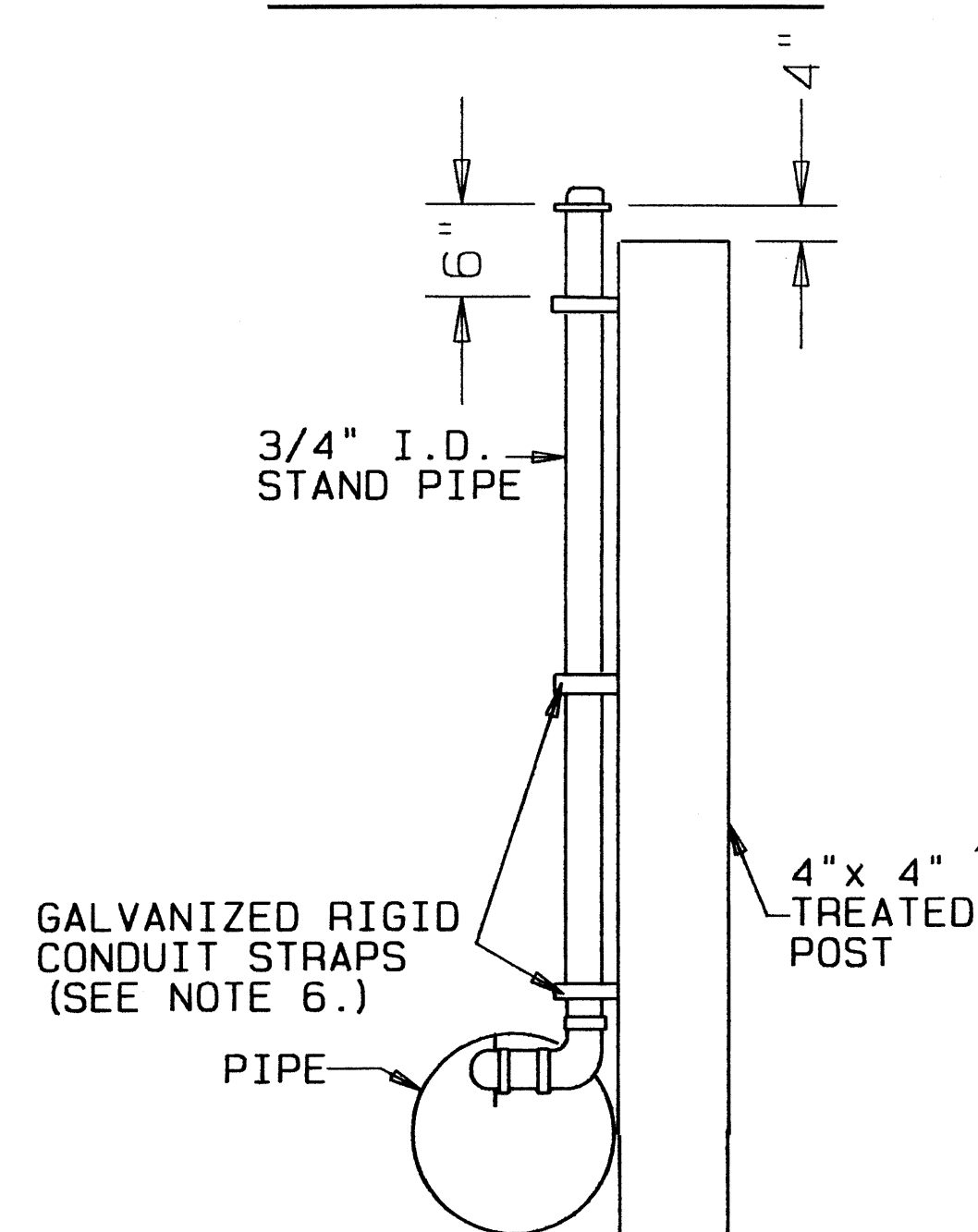
- EXISTING MONUMENTS AT CENTERLINE ARE APPROXIMATELY ONE FOOT BELOW EXISTING TOP OF PAVEMENT.
- RESET CENTERLINE MONUMENTS SHALL BE MAGNETIZED ALUMINUM PROPERTY CORNER CAPS ON REBAR PLACED 0.01 FOOT BELOW TOP OF PAVEMENT. PROPERTY CORNERS AT CENTERLINE SHALL NOT REQUIRE MONUMENT CASES.
- EXISTING MONUMENTS WITH BRASS CAPS SHALL BE REFERENCED AND RESET WITH EXISTING OR EQUAL MONUMENTATION.

THAW PIPE ✓

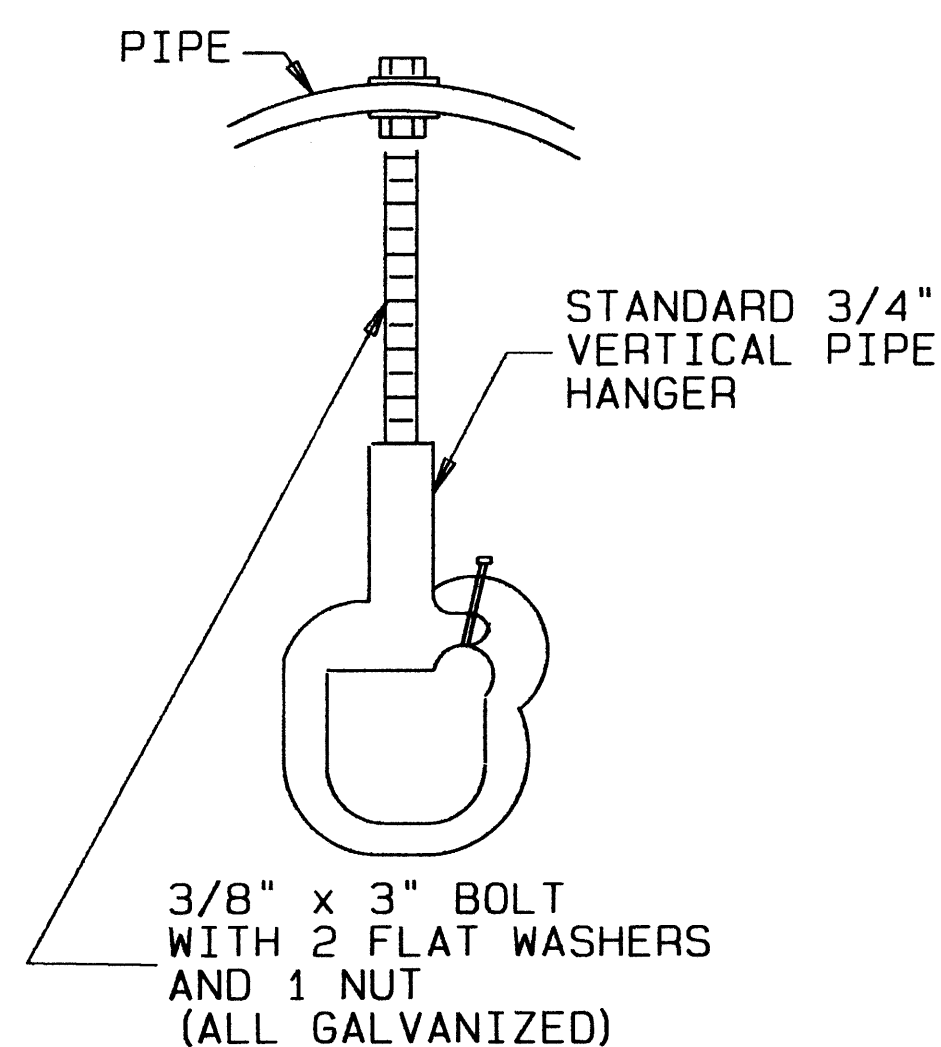


THAW PIPE DETAILS

STAND PIPE ✓



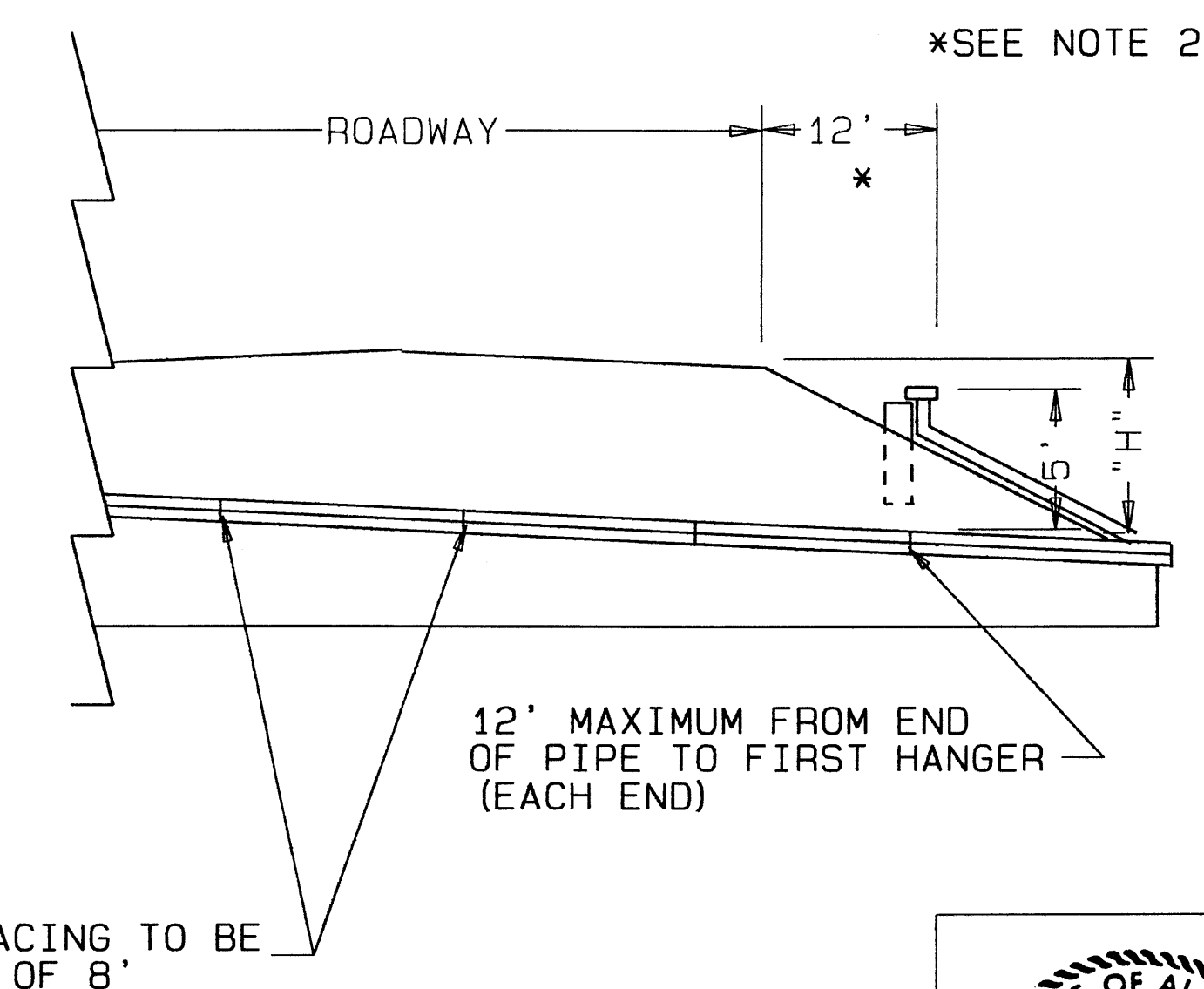
PIPE HANGER ✓



NOTES ✓

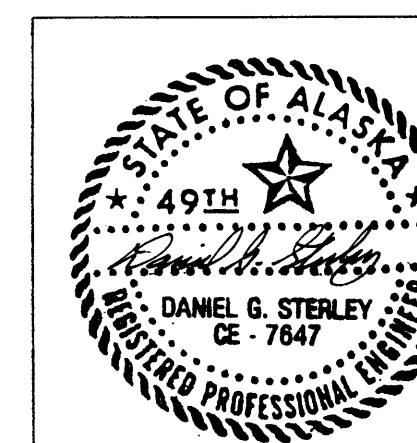
- ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
- WHEN "H" EXCEEDS 5' THE STAND PIPE SHALL BE LOCATED ON THE ROADWAY SLOPE 12' FROM THE SHOULDER.
- THAW PIPE WILL BE POSITIONED IN EACH INSTALLATION AS DIRECTED BY THE ENGINEER.
- INSTALLATION OF THIS THAW PIPE IS RESTRICTED TO STEEL CULVERT.
- LENGTH OF POST VARIES. MINIMUM EMBEDMENT DEPTH IS 4'.
- PIPE SHALL BE FASTENED TO POSTS WITH GALVANIZED RIGID CONDUIT STRAPS WITH LAG SCREWS ON 12" CENTERS.
- ALL PIPE JOINTS SHALL BE SEALED WITH AN APPROVED SEALING COMPOUND, EXCEPT THE 3/4" END CAPS SHALL NOT BE SEALED.

SECTION



HANGER SPACING TO BE A MAXIMUM OF 8'

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GUARDRAIL SUMMARY

STATION TO STATION	RT/LT	606(1) W-BEAM GUARDRAIL (FT)	606(3) BOX BEAM GUARDRAIL (FT)	605(5) REMOVAL & DISPOSAL (FT)	606(8) TERM (EA) *	606(9) CONTROLLED RELEASE TERM (EA)**	606(12) GUARDRAIL/ BRDG CONN (EA) ***
297+40 TO 299+85.3	RT	187.5 ✓		137.5 ✓ 125		1 (RT)	1
298+63 TO 300+19.7	LT	137.5 ✓		62.5 ✓ 50	1		1
303+73.7 TO 304+92.5	RT	100 ✓		125 ✓	1		1
304+08 TO 307+02	LT	275 ✓		200 ✓	1		1
356+00 TO 373+50*	LT	1,412.5 ✓		1,412.5 ✓	2		
398+00 TO 423+52	LT	-	2,502 ✓	2,525 2,500 ✓			
418+25 TO 423+75	RT	-		550 ✓			
430+14 TO 435+00	LT	-	486 ✓	475 ✓			
441+00 TO 477+78	LT	-	3,672 ✓	3,675 ✓			
511+25 TO 512+50	RT	-		125 ✓			
511+50 TO 512+75	LT	-		125 ✓			
2158+72 TO 2159+53	RT	43.75 62.5		62.5 ✓ 75	1		1
2158+77 TO 2159+33	LT	31.25 37.5		50 ✓	1		1
2160+44 TO 2161+00	RT	31.25 37.5		50 ✓	1		1
2160+24 TO 2161+80	LT	56.25 62.5		75 ✓	1		1
2525+75 TO 2533+09	RT	-		800 ✓			
2526+75 TO 2533+09	LT	-		700 ✓			
2535+78 TO 2538+59	RT	262.5 ✓		425 575 ✓	1		1
2535+83 TO 2538+52	LT	250.0 ✓		425 562.5 ✓	1		1
2542+17 TO 2542+36	RT	-		18.75 ✓			1
2542+11 TO 2542+30	LT	-		18.75 ✓			1
TOTALS		2,787.5 2,825.0	6,660.0 ✓	12,325.0 12,287.5	11 ✓	1 ✓	12 ✓

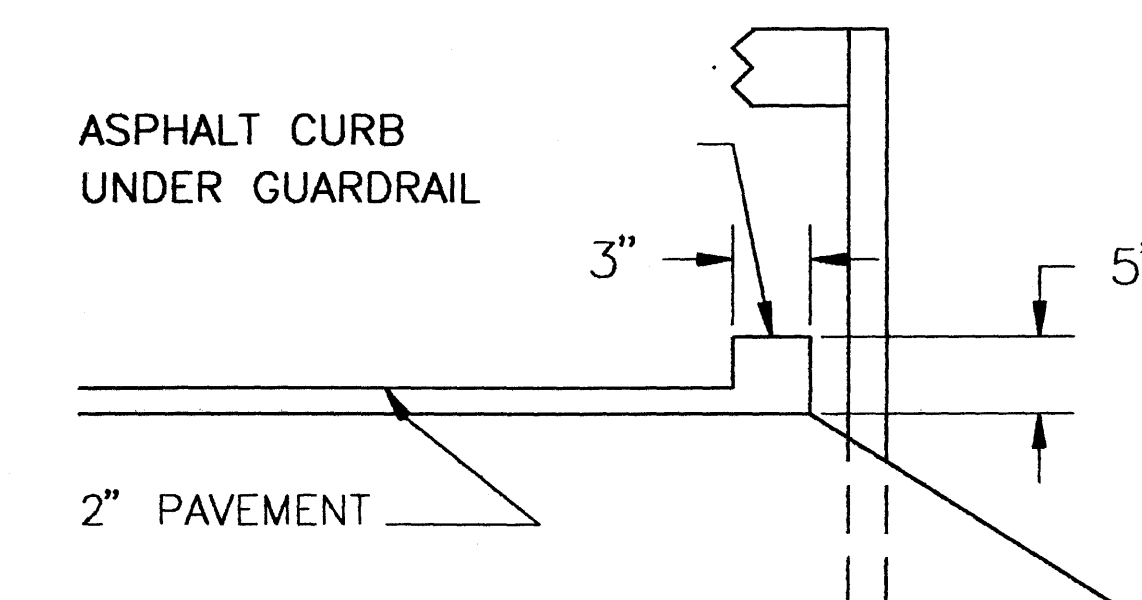
* TERMINAL TRANSITION LENGTH IS 37.5 FT. W-BEAM LENGTH IS INCLUDED UNDER 606(1) TOTALS.
 ** CRT LENGTH IS 75 FT. AND IS NOT INCLUDED IN THE 606(1) TOTALS. BEGIN CRT BACK FROM STATION "L4" 297+78± RT.
 *** GUARDRAIL/BRIDGE RAIL CONNECTION IS 18.75 FT.

GUARDRAIL SUMMARY NOTES:

ADDENDUM NO. 1, ATTACHMENT NO. 12

- ✓ 1. GUARDRAIL/BRIDGE RAIL CONNECTIONS SHALL BE MEASURED PER EACH INSTALLED IN PLACE. EACH CONNECTION SHALL INCLUDE STANDARD THRIE BEAM SECTION (NESTED), THRIE BEAM TO STANDARD W-BEAM TRANSITION, AND ALL POSTS AND ASSOCIATED HARDWARE REQUIRED TO CONNECT STANDARD W-BEAM GUARDRAIL TO A BRIDGE PER STD. DWG. G-29.01S.
- ✓ 2. TERMINAL SECTION WILL BE INSTALLED IN ACCORDANCE WITH STD. DWG. G-14.04W OR G-14.04S. TERMINAL PORTS SHALL BE STEEL.
- ✓ 3. CRT RADIUS SHALL BE 25' WITH A CURVED RAIL LENGTH OF 37.5 FT. TOTAL CRT LENGTH SHALL BE 75 FT.
- ✓ 4. ALL REMOVAL AND DISPOSAL MATERIALS SHALL BE DISPOSED OFF THE PROJECT LIMITS. THE CANTWELL DUMP SHALL NOT BE USED AS A PROJECT DISPOSAL SITE.
- ✓ 5. ALL EXISTING GUARDRAIL SHALL BE REMOVED PRIOR TO RECONDITIONING. IT IS ESTIMATED THAT APPROXIMATELY 50% OF THE EXISTING RAIL ELEMENTS TO BE REMOVED CAN BE SALVAGED AND RE-INSTALLED AS APPROVED BY THE ENGINEER. PAYMENT OF SALVAGED RAIL ELEMENTS APPROVED FOR USE SHALL BE PAID FOR UNDER ITEM 606(1) W-BEAM GUARDRAIL.
- ✓ 6. THE FACE OF BOX BEAM GUARDRAIL SHOULD BE 8' FROM THE EDGE OF TRAVELED WAY, EXCEPT IN APPROACHES AND TERMINAL END SECTIONS, WHICH SHOULD BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING G-11.00.

ASPHALT CURB DETAIL

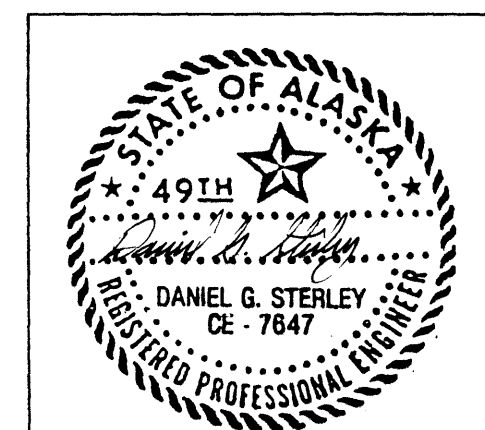


NOTES:

1. ASPHALT CURB SHALL SET INSIDE THE FACE OF GUARDRAIL AS SHOWN ABOVE.
2. MATCH BRIDGE CURB AT BEGIN AND END OF BRIDGE.
3. ONE FOOT OPENINGS FOR DRAINAGE SHALL BE EVERY 50' OR AS DIRECTED BY THE ENGINEER.
4. APPLY CSS-1 SEAL COAT FOR CURB.
5. ASPHALT CURB WILL NOT BE MEASURED SEPARATELY FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 401(1), ASPHALT CONCRETE TYPE IV.

ASPHALT CURB PLACEMENT LIMITS

BEGIN	END	LENGTH
300+00 LT (BRIDGE)	300+20 LT (BRIDGE)	20 FT. ✓
304+09 LT	305+09 LT	100 FT. ✓
466+00 LT	471+00 LT	500 FT. ✓
2538+20 LT	2538+44 LT (BRIDGE)	24 FT. ✓
2538+26 RT	2538+50 RT (BRIDGE)	24 FT. ✓
2542+26 RT (BRIDGE)	2542+41 RT	15 FT. ✓
2542+20 LT (BRIDGE)	2542+35 LT	15 FT. ✓
TOTAL CURB		698 L.F.



AS-BUILT

7/64924P18

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-OA4-3 (7)	1991	16	26

G4W BEAM GUARDRAIL

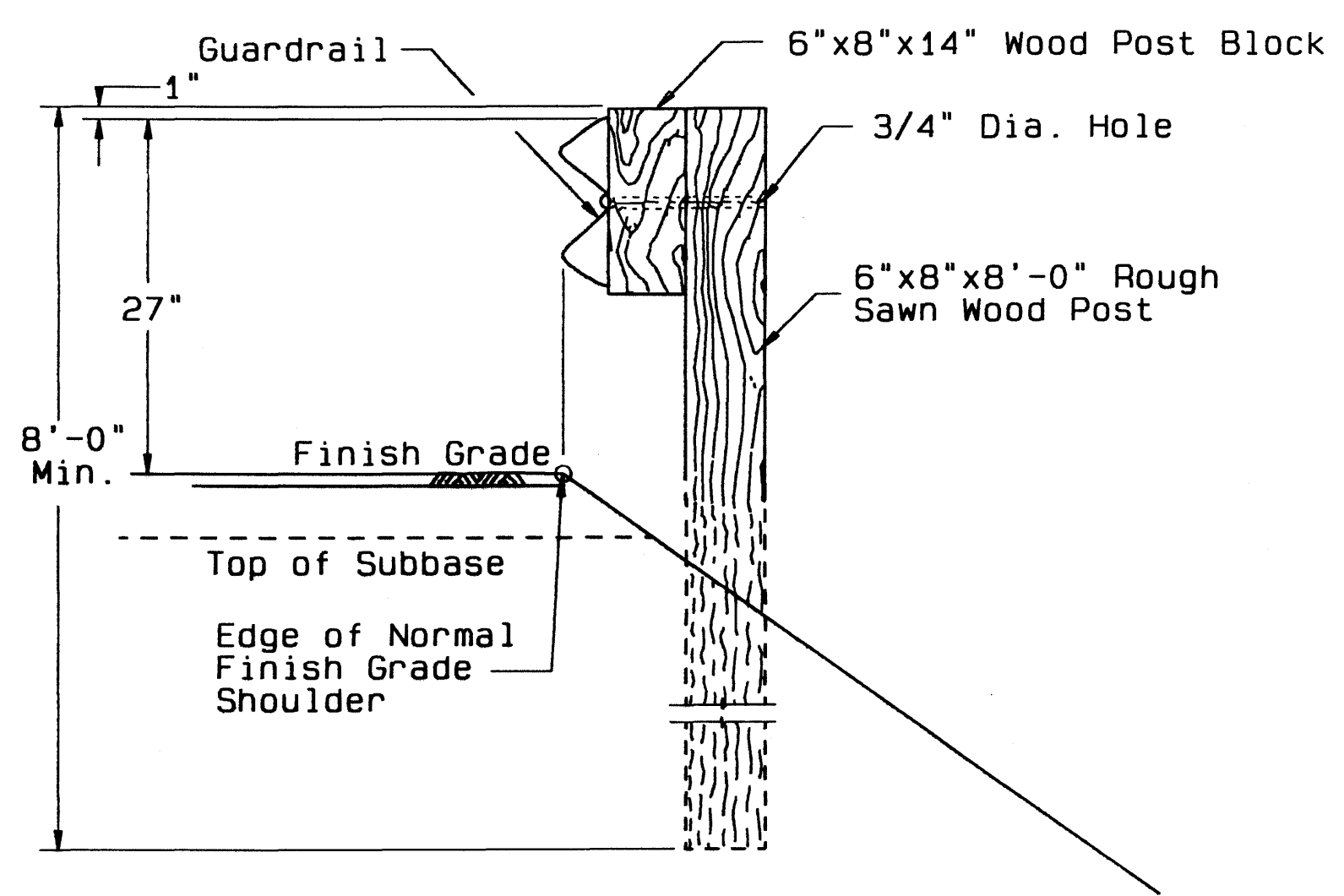
GUARDRAIL NOTES

1. Metal Beam Guardrail and Guardrail Hardware shall conform to AASHTO M-180 Class A, Type 2.
2. Wood Posts and Wood Blocks shall be of a timber stress grade of 1200psi or more in accordance with the West Coast Lumber Inspection Bureau, current edition
3. Timber shall be treated in accordance with Section 714 of Alaska Standard Specifications for Highway Construction.
4. Guardrail Reflectors shall be mounted at 50' centers.
5. Reflectorized material shall conform with the applicable portion of Section 615 of Alaska Standard Specifications for Highway Construction.

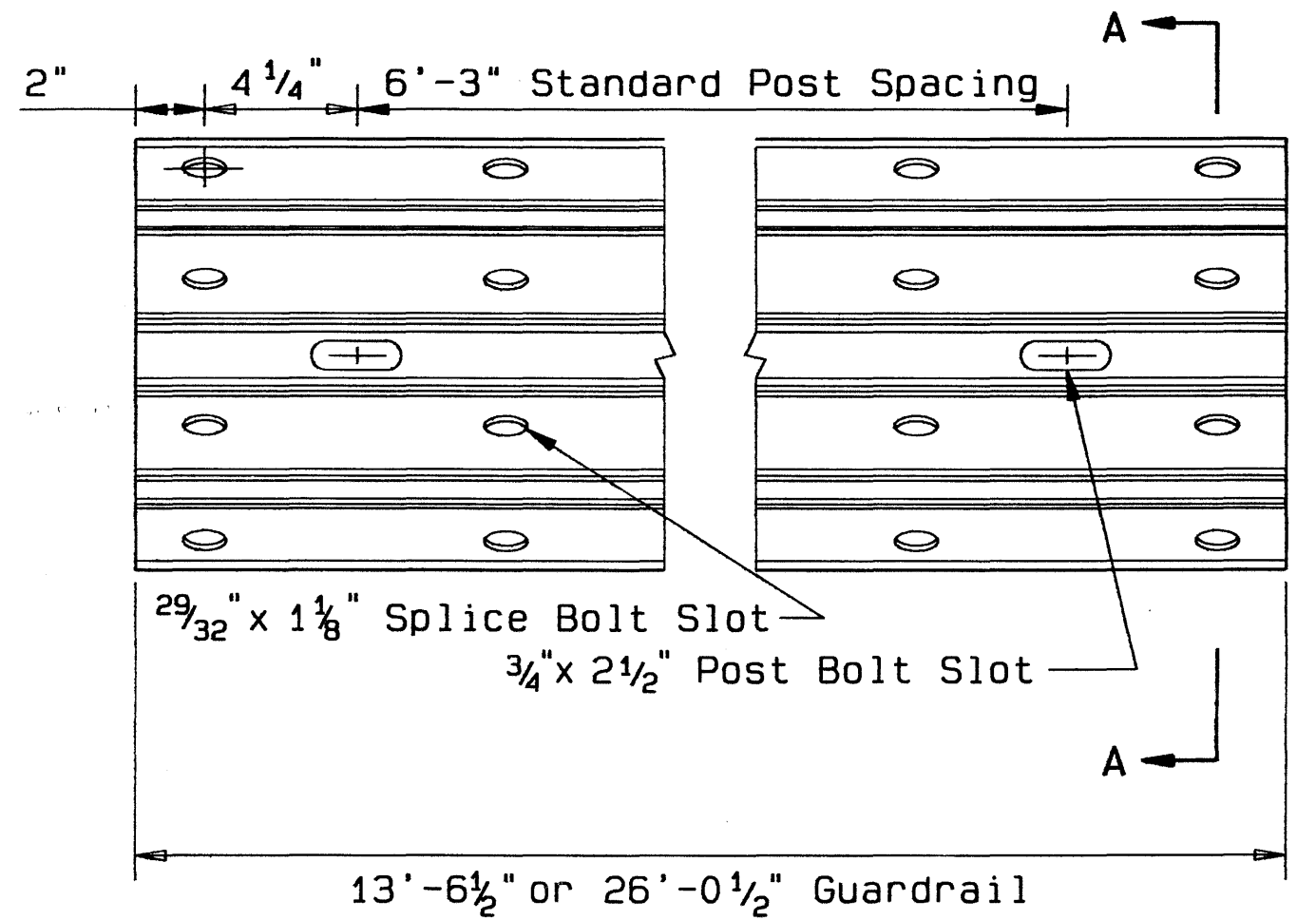
Guardrail Reflectors		
Type	Color	Reflectorized
A	White	Front & Rear
B	White	Front
C	Yellow	Front
D	Yellow	Front & Rear

6. Type A Reflector shall be used unless specified otherwise on the plans, beginning with first guardrail post.

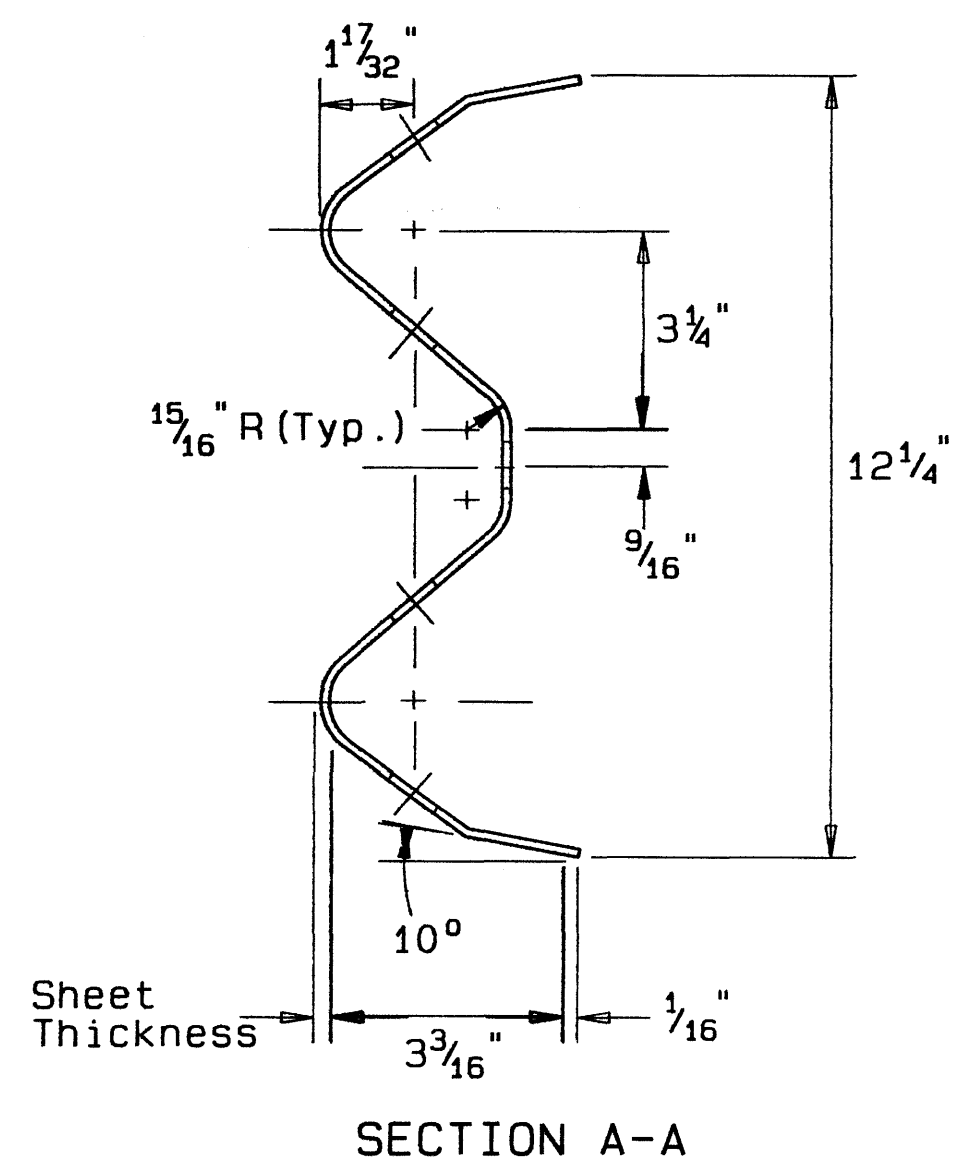
7. All barrier hardware as shown in ARTBA "A Guide To Standardized Highway Barrier Rail Hardware" is acceptable.



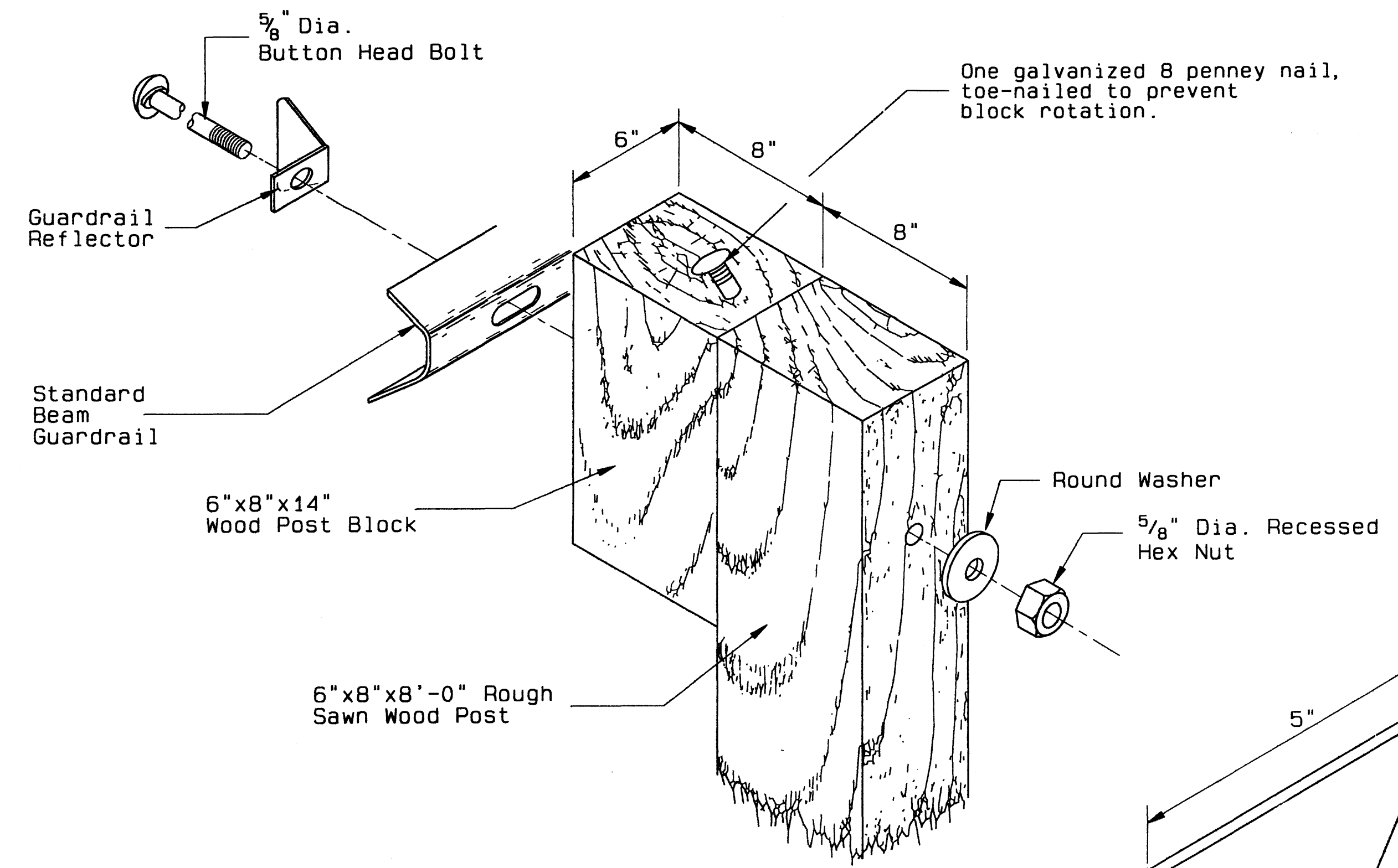
TYPE I POST INSTALLATION



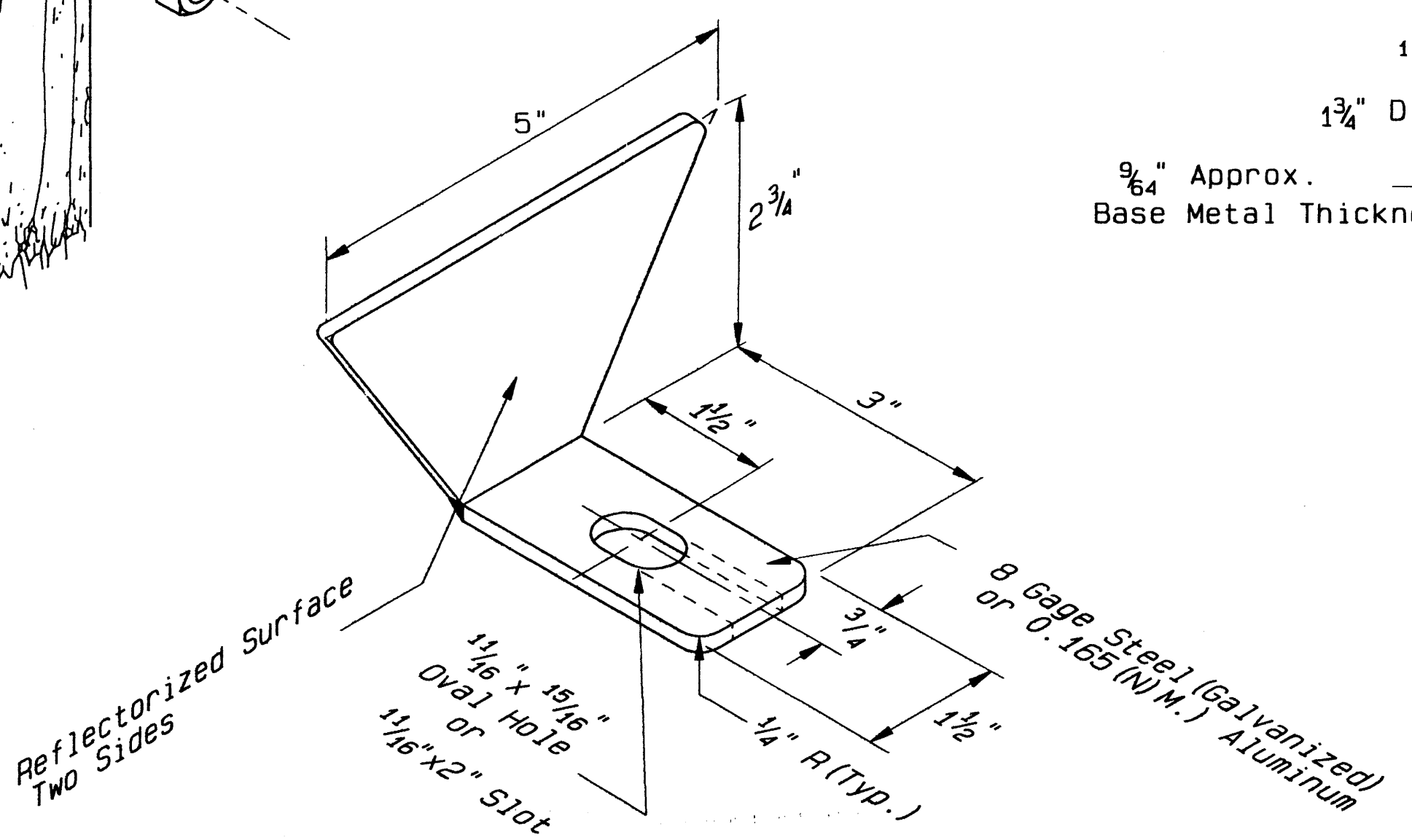
STANDARD BEAM GUARDRAIL



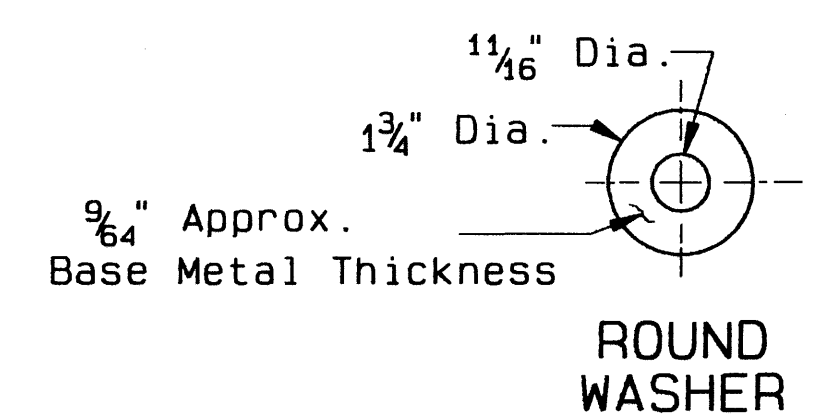
SECTION A-A



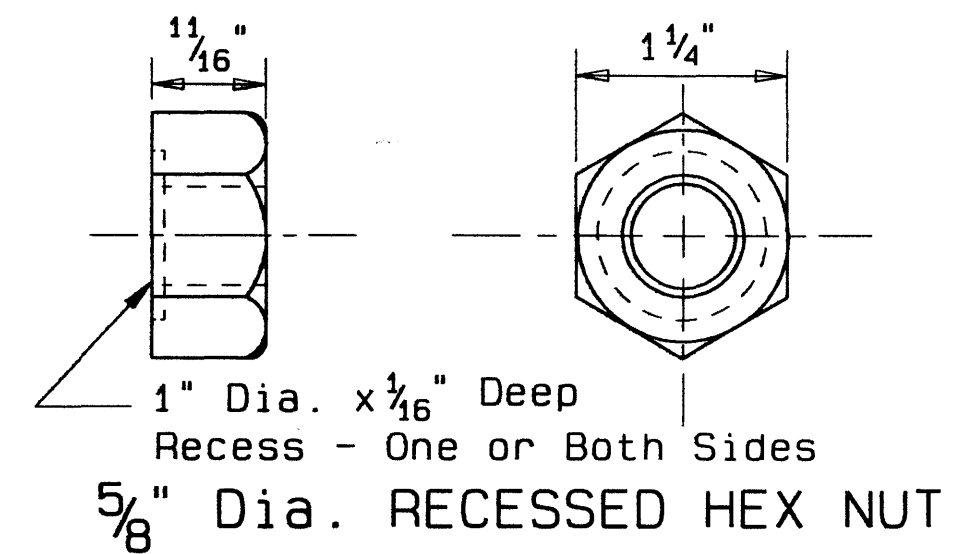
ASSEMBLY DETAIL



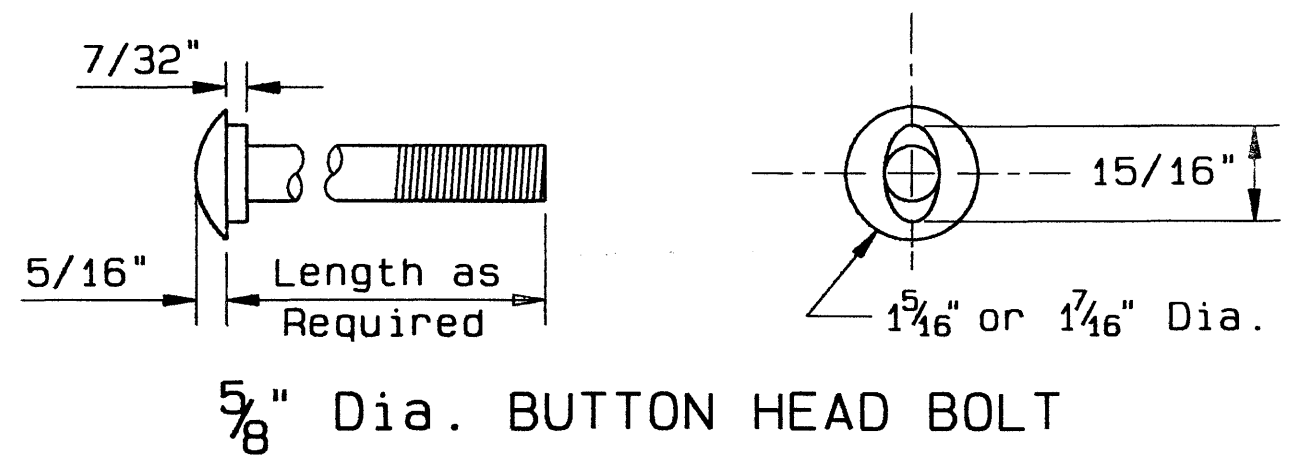
GUARDRAIL REFLECTOR



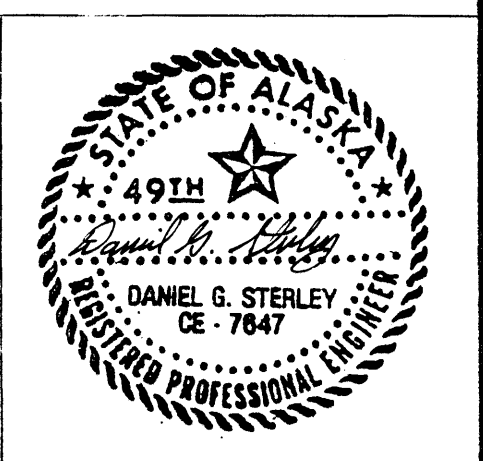
ROUND WASHER



5/8" Dia. RECESSED HEX NUT



5/8" Dia. BUTTON HEAD BOLT



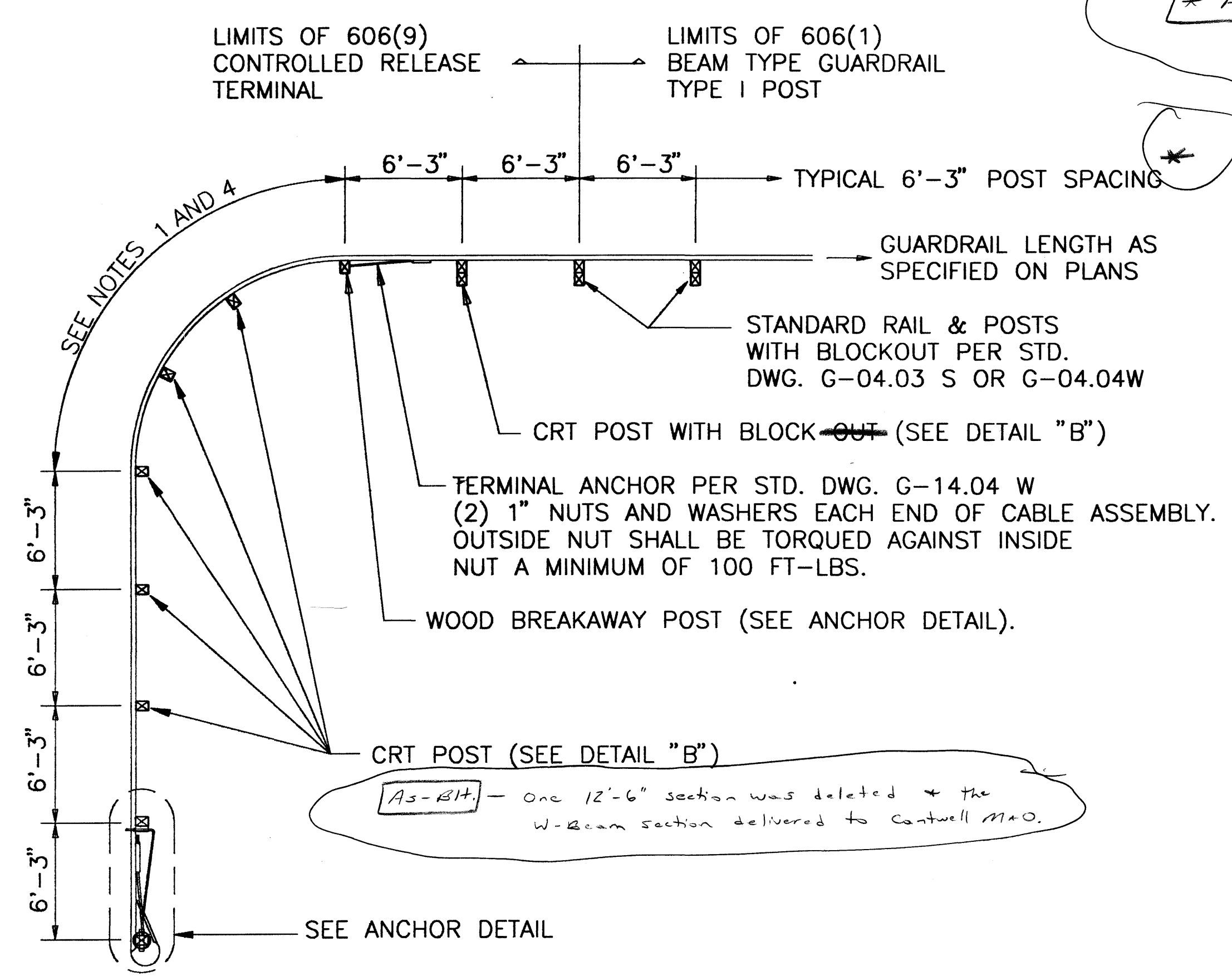
AS-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3(7)	1991	17	26

NOTES

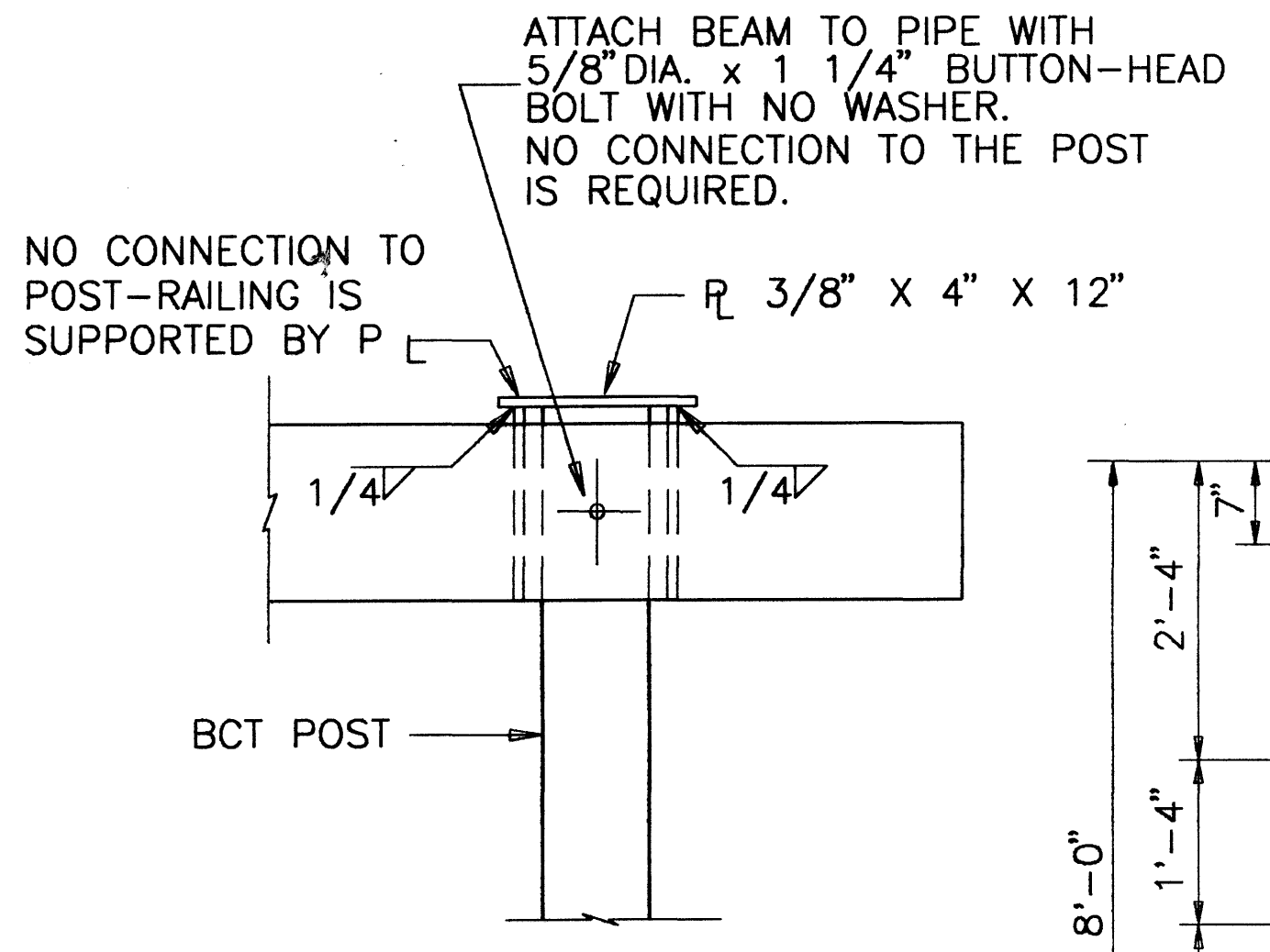
- POST SPACING SHALL BE 6'-3" IN CURVED SECTION. IF THE CURVED SECTION DOES NOT DIVIDE EVENLY INTO 6'-3" SPACES, THEN THE SHORTER SPACE SHALL BE AT THE RADII POINT LOCATED AT THE APPROACH. IF THIS SPACE IS LESS THAN 2'-6" THEN ELIMINATE THE POST.
- FOR RADII ≤ 8'-6" THE CURVED RAIL SECTION SHALL NOT BE BOLTED TO THE RAIL.
- FOR RADII > 8'-6" THE CURVED RAIL SECTION SHALL BE ATTACHED TO THE CRT POSTS WITH 9"x5/16" BOLTS AND NUTS, WITHOUT WASHERS.
- SEE GUARDRAIL SUMMARY FOR RADIUS AND LENGTH OF THE CURVED SECTION. THE DETAIL SHOWS A RIGHT-HAND ENTRY SEE SUMMARY SHEET FOR EITHER RIGHT-HAND OR LEFT-HAND ENTRY.

** As-Built - 6'-3" of W-Beam was deleted to keep the W-Beam run from extending into the approach. (Note: The Contractor was paid for an even number of 12'-6" sections as he had to waste 6'-3" of W-Beam behind another 12'-6" section.)*

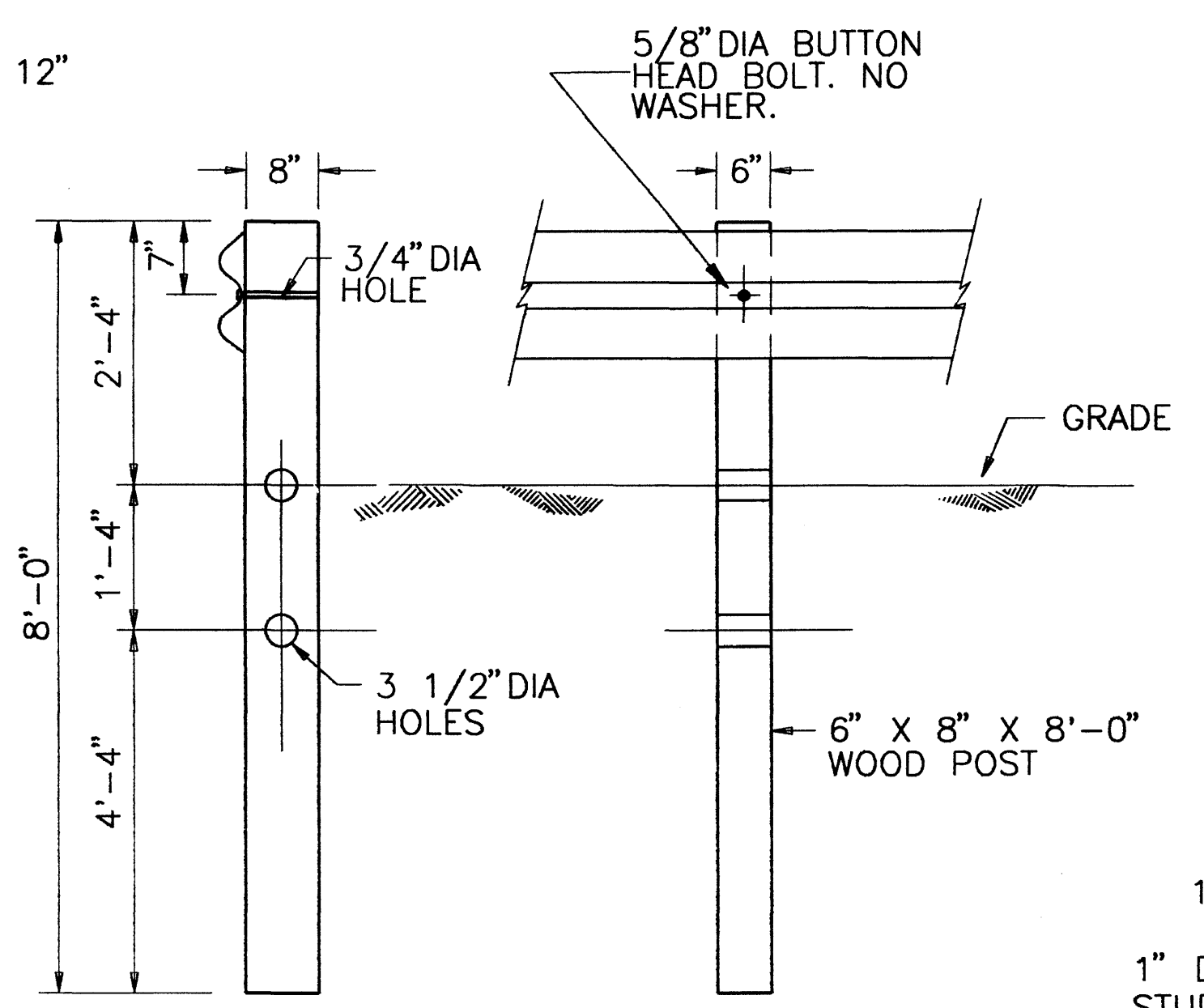


** As-Built - One 12'-6" section was deleted & the W-Beam section delivered to Cantwell M&O.*

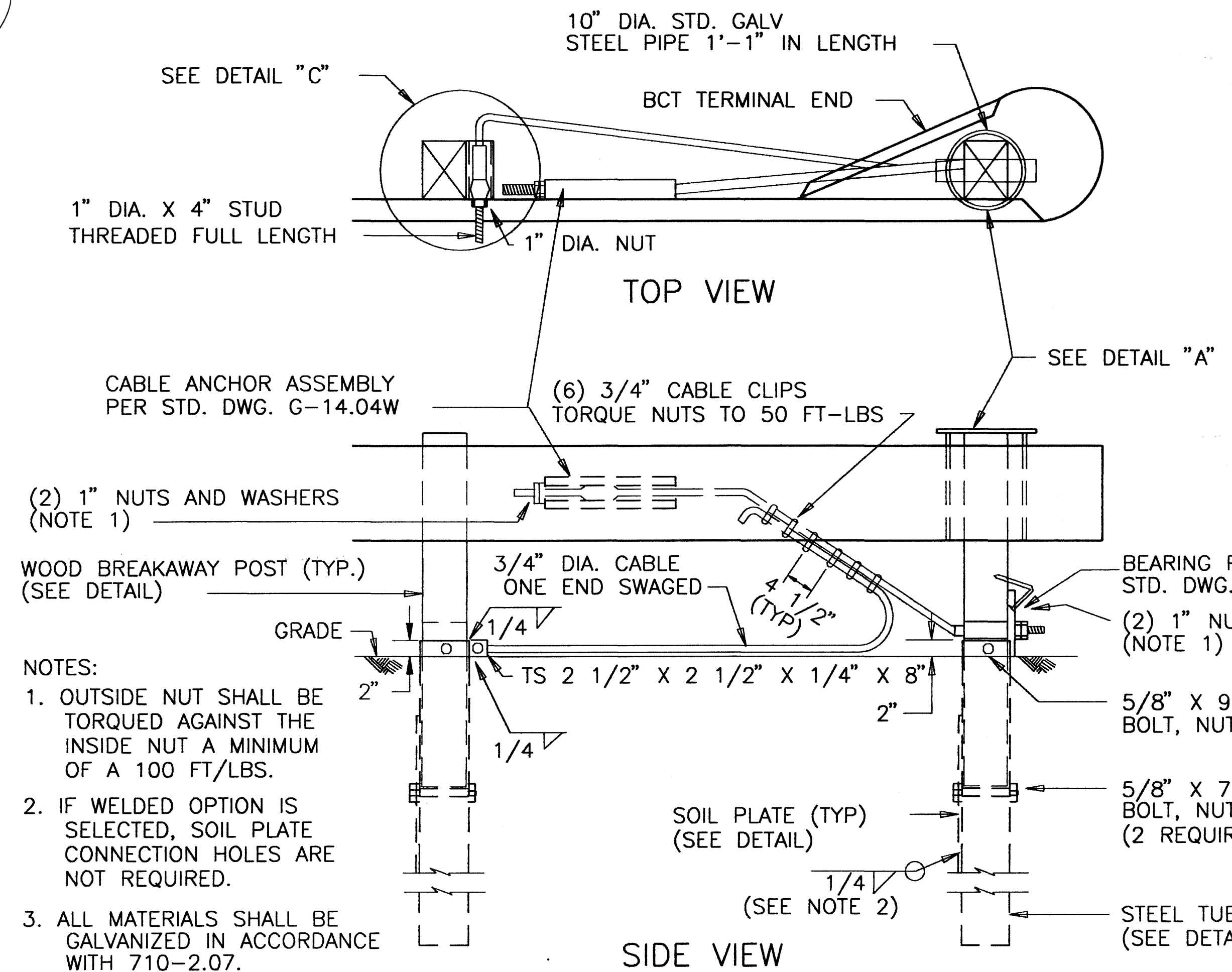
CONTROLLED RELEASE TERMINAL PLAN



DETAIL "A"

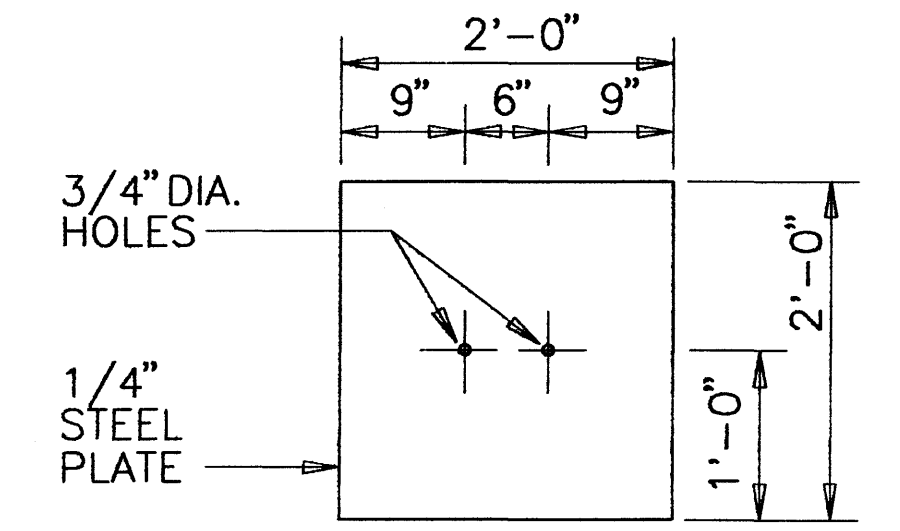


DETAIL "B"

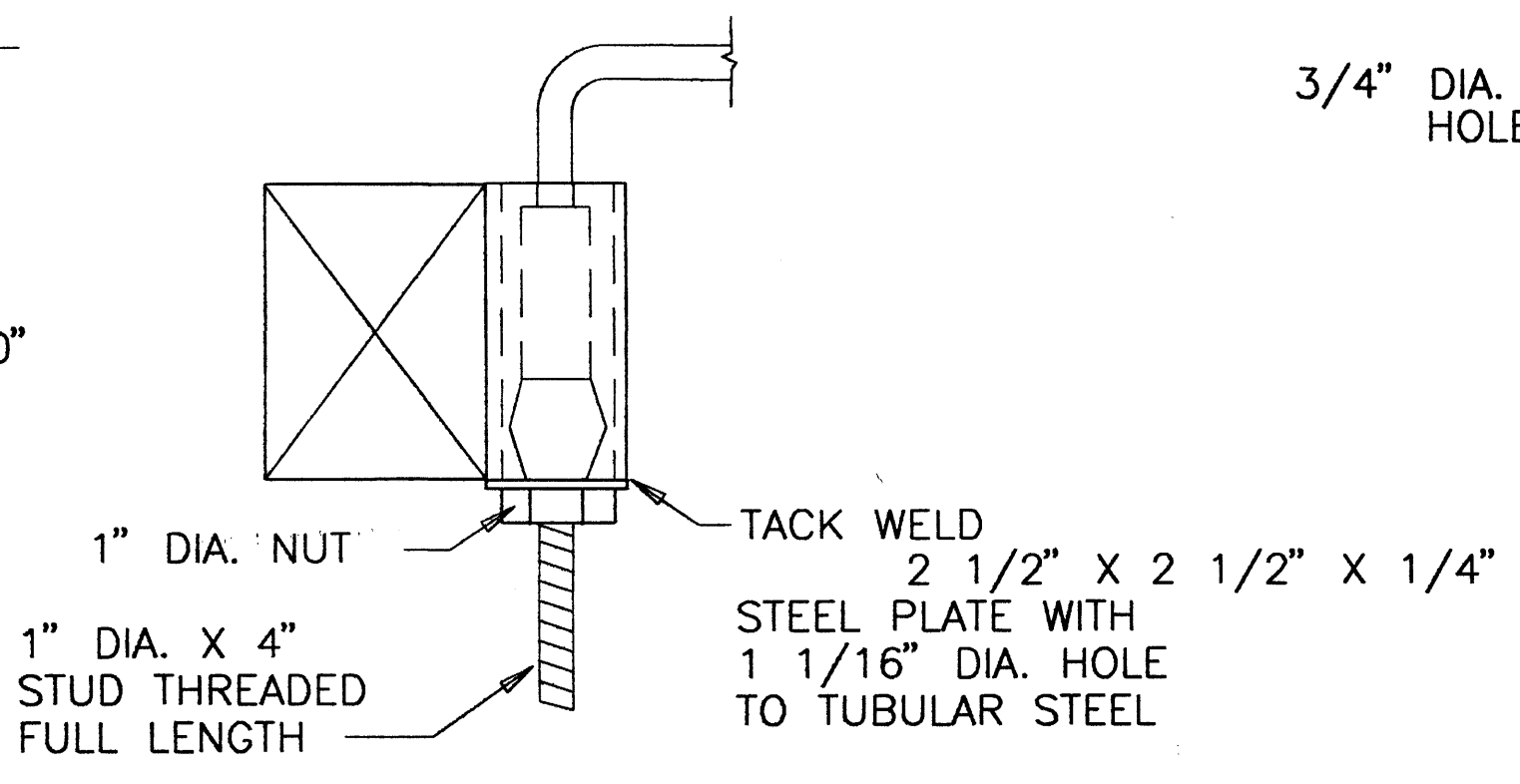


ANCHOR DETAIL

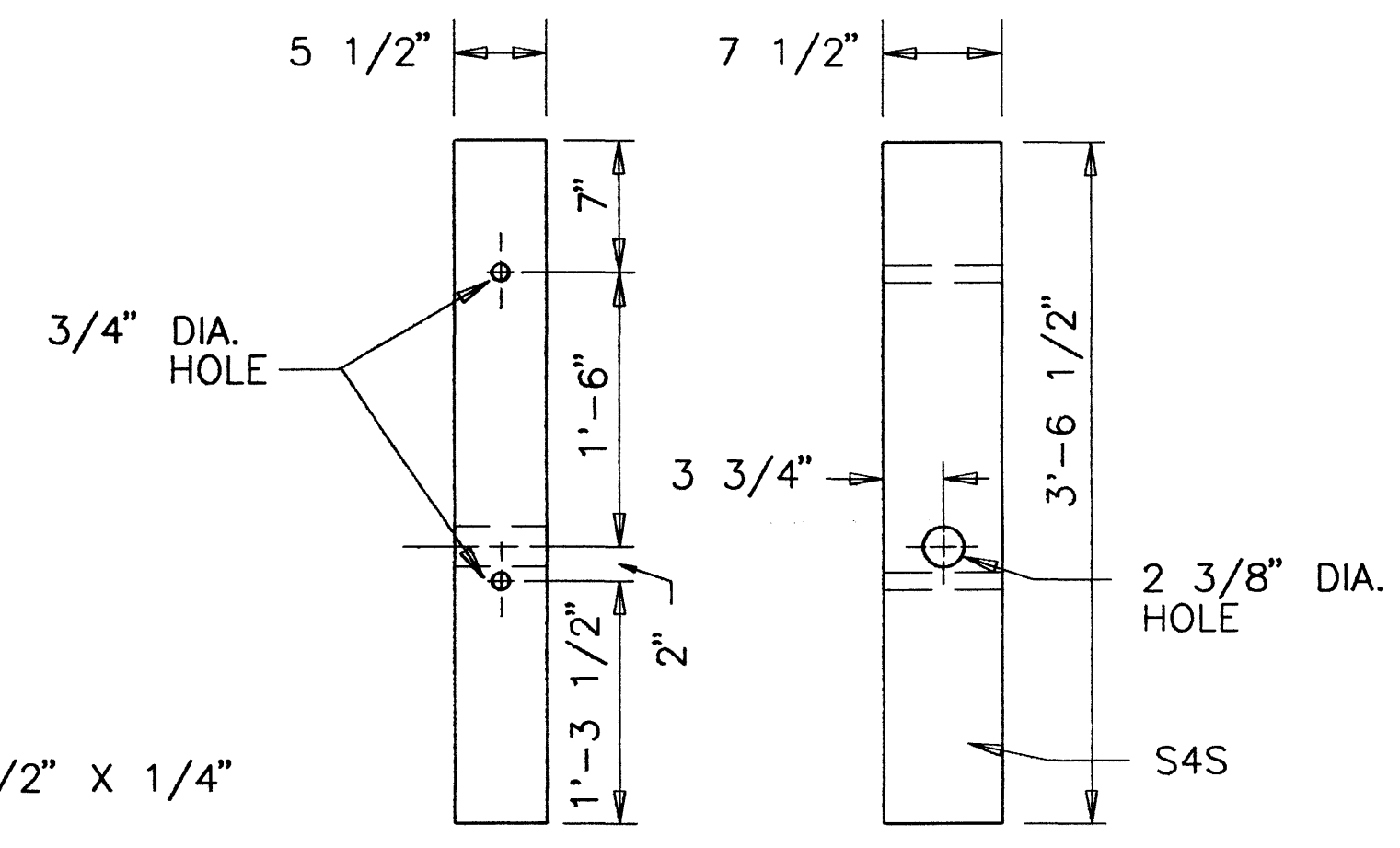
- NOTES:
- OUTSIDE NUT SHALL BE TORQUED AGAINST THE INSIDE NUT A MINIMUM OF A 100 FT/LBS.
 - IF WELDED OPTION IS SELECTED, SOIL PLATE CONNECTION HOLES ARE NOT REQUIRED.
 - ALL MATERIALS SHALL BE GALVANIZED IN ACCORDANCE WITH 710-2.07.



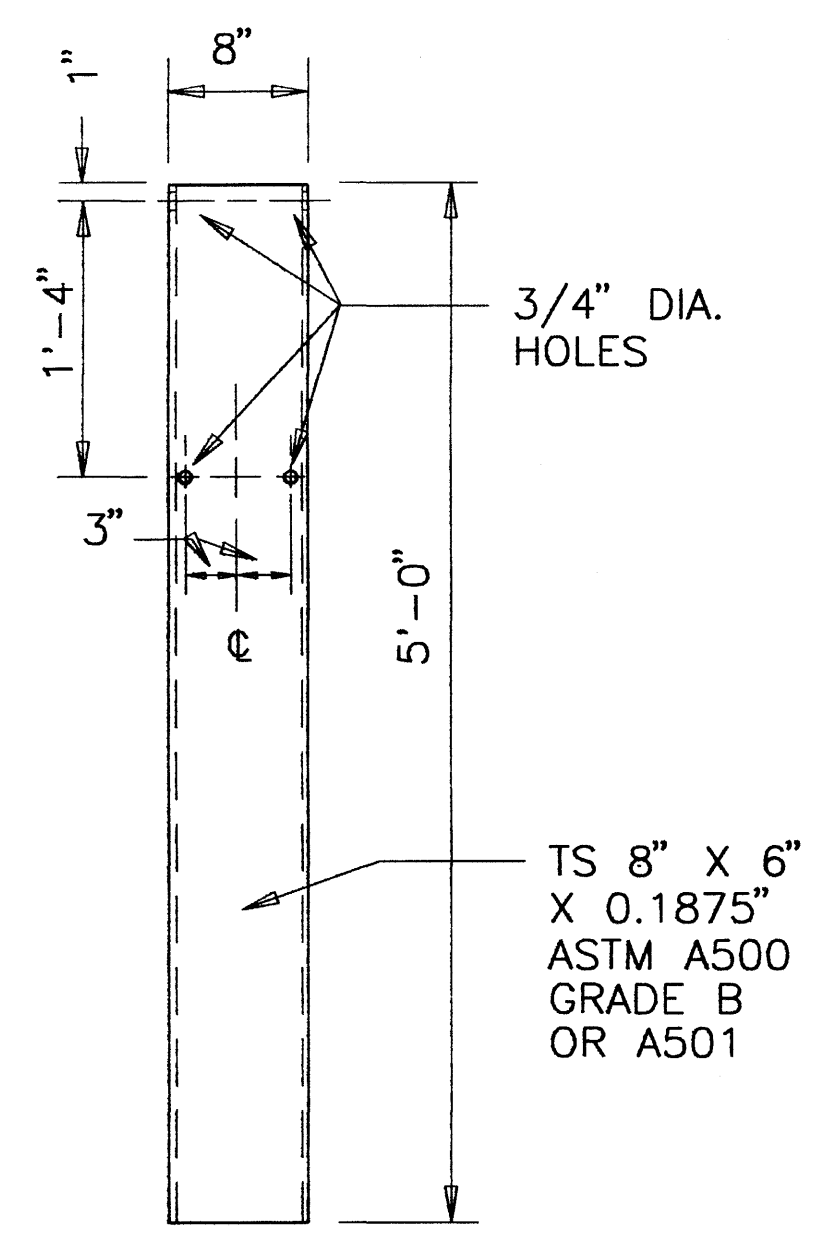
SOIL PLATE



DETAIL "C"



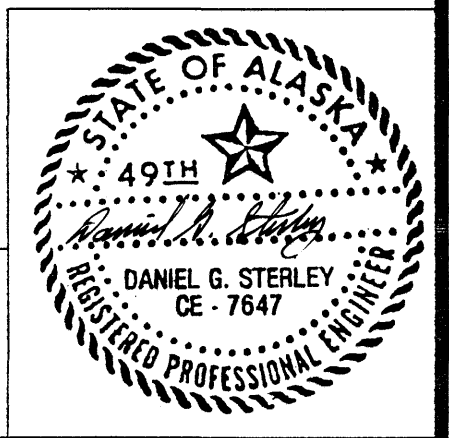
WOOD BREAKAWAY POST



STEEL TUBE

CONTROLLED RELEASE TERMINAL DETAILS

AS-BUILT



SIGN SUMMARY

STATION	LT/RT	CODE NO.	LEGEND	SIZE	THICKNESS		AREA (SQ FT)	NO. OF POSTS	REMARKS
					UNFR'D	FRAMED			
301+00	RT	I-3	Nenana River	66 5/8 x 36		0.125 0.100	13.50	2	8" UC/6" LC, SER. E(MOD)
	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
303+00	LT	I-3	Nenana River	66 5/8 x 36		0.125 0.100	13.50	2	8" UC/6" LC, SER. E(MOD)
	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
306+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
308+50	RT	M10-2	216	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
316+00	LT	W1-2R	SYMBOL/CURVE RIGHT	36 x 36	0.080		9.00	1	
327+00	LT	W7-1b	SYMBOL/TK-HILL-6%	36 x 36	0.080		9.00	1	
341+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
350+50	RT	M10-2	217	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
410+00	RT	M10-2	218	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
420+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
456+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
457+00	RT	W16-1	SLIDE AREA	36 x 36	0.080		9.00	1	
	LT	W16-2	END SLIDE AREA	36 x 36	0.080		9.00	1	
463+00	RT	M10-2	219	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
477+75	RT	W16-2	END SLIDE AREA	36 x 36	0.080		9.00	1	
	LT	W16-1	SLIDE AREA	36 x 36	0.080		9.00	1	
485+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
511+50	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080	0.125	10.00	1	MOUNT SIGNS BACK TO BACK
511+75	RT	I-3	Slime Creek	54 x 36		0.100	13.50	2	8" UC/6" LC, SER. E(MOD)
512+50	RT	I-3	Slime Creek	54 x 36		0.100	13.50	2	8" UC/6" LC, SER. E(MOD)
513+50	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080	0.125	10.00	1	MOUNT SIGNS BACK TO BACK
515+50	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080		10.00	1	MOUNT SIGNS BACK TO BACK
516+00	RT	M10-2	220	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
522+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
525+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
541+00	LT	R1-1	STOP	30 x 30	0.080		6.25	1	
558+00	LT	R1-1	STOP	30 x 30	0.080		6.25	1	
569+00	RT	M10-2	221	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2009+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
2023+75	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080		10.00	1	MOUNT SIGNS BACK TO BACK
2026+75	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080		10.00	1	MOUNT SIGNS BACK TO BACK
2029+75	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080		10.00	1	MOUNT SIGNS BACK TO BACK
2032+75	LT	W1-8	SYMBOL/CHEVRON	(2)24 x 30	0.080		10.00	1	MOUNT SIGNS BACK TO BACK
2045+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
2052+50	RT	M10-2	222	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2081+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	
2104+00	RT	M10-2	223	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2149+00	LT	R2-1	SPEED LIMIT 55	30 x 36	0.080		7.5	1	
2157+00	RT	M10-1	224	(2)6 x 18	0.080	0.125	1.50	1	MOUNT SIGNS BACK TO BACK
2159+50	RT	I-3	Carlo Creek	54 x 36		0.080	13.50	2	8" UC/6" LC, SER. E(MOD)
	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
2160+27	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080	0.125	3.00	1	
2160+30	LT	I-3	Carlo Creek	54 x 36		0.080	13.50	2	8" UC/6" LC, SER. E(MOD)
2188+00	RT	R2-2	SPEED LIMIT 55	30 x 36	0.080		7.5	1	
2220+00	LT	D9-14	SYMBOL/PARKING	24 x 24	0.080		4.00	1	DELETED

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-OA4-3(7)	1991	18	26

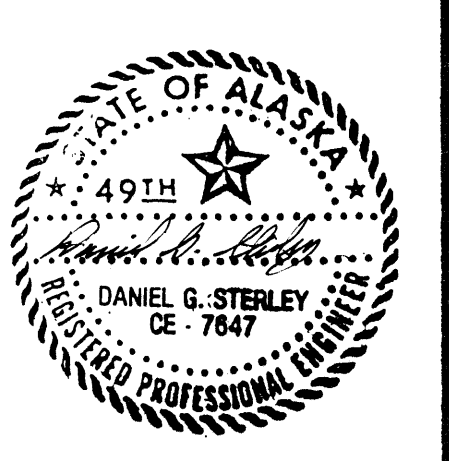
SIGN SUMMARY

STATION	LT/RT	CODE NO.	LEGEND	SIZE	THICKNESS		AREA (SQ FT)	NO. OF POSTS	REMARKS
					UNFR'D	FRAMED			
2186+00	RT	D9-14	SYMBOL/PARKING	24 x 24	0.080		4.00	1	DELETED
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	DELETED
2211+00	RT	M10-2	225	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2220+00	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	DELETED
2269+00	RT	M10-2	226	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2323+00	RT	M10-2	227	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2371+00	RT	M10-2	228	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2425+00	RT	M10-2	229	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2445+00	RT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	RT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	MOUNT UNDER SIGN D9-14
2472+00	RT	R1-1	STOP	30 x 30	0.080		6.25	1	
2475+00	RT	M10-2	230	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2479+00	LT	D9-14	SYMBOL/PARKING	24 x 30	0.080		5.00	1	COMBINED INTO (1) SIGN
	LT	D9-E	1500 FT	24 x 6	0.080	0.080	1.00	1	MOUNT UNDER SIGN D9-14
2500+00	RT	W7-1b	SYMBOL/TK-HILL-6%	36 x 36	0.080		9.00	1	
2529+00	RT	M10-2	231	(2)6 x 18	0.080		1.50	1	MOUNT SIGNS BACK TO BACK
2533+08	LT	R1-1	STOP	30 x 30	0.080		6.25	1	
2533+42	RT	R1-1	STOP	30 x 30	0.080		6.25	1	
2538+51	RT	I-3	Nenana River	66 x 36		0.125 0.080	16.50	2	8" UC/6" LC, SER. E(MOD)
2538+55	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
2542+14	RT	OM-3R	SYMBOL/MARKER	12 x 36	0.080		3.00	1	
	LT	OM-3L	SYMBOL/MARKER	12 x 36	0.080	0.125	3.00	1	
2542+20	LT	I-3	Nenana River	66 x 36		0.080	16.50	2	8" UC/6" LC, SER. E(MOD)
TOTAL							426.0	104	77

419.25

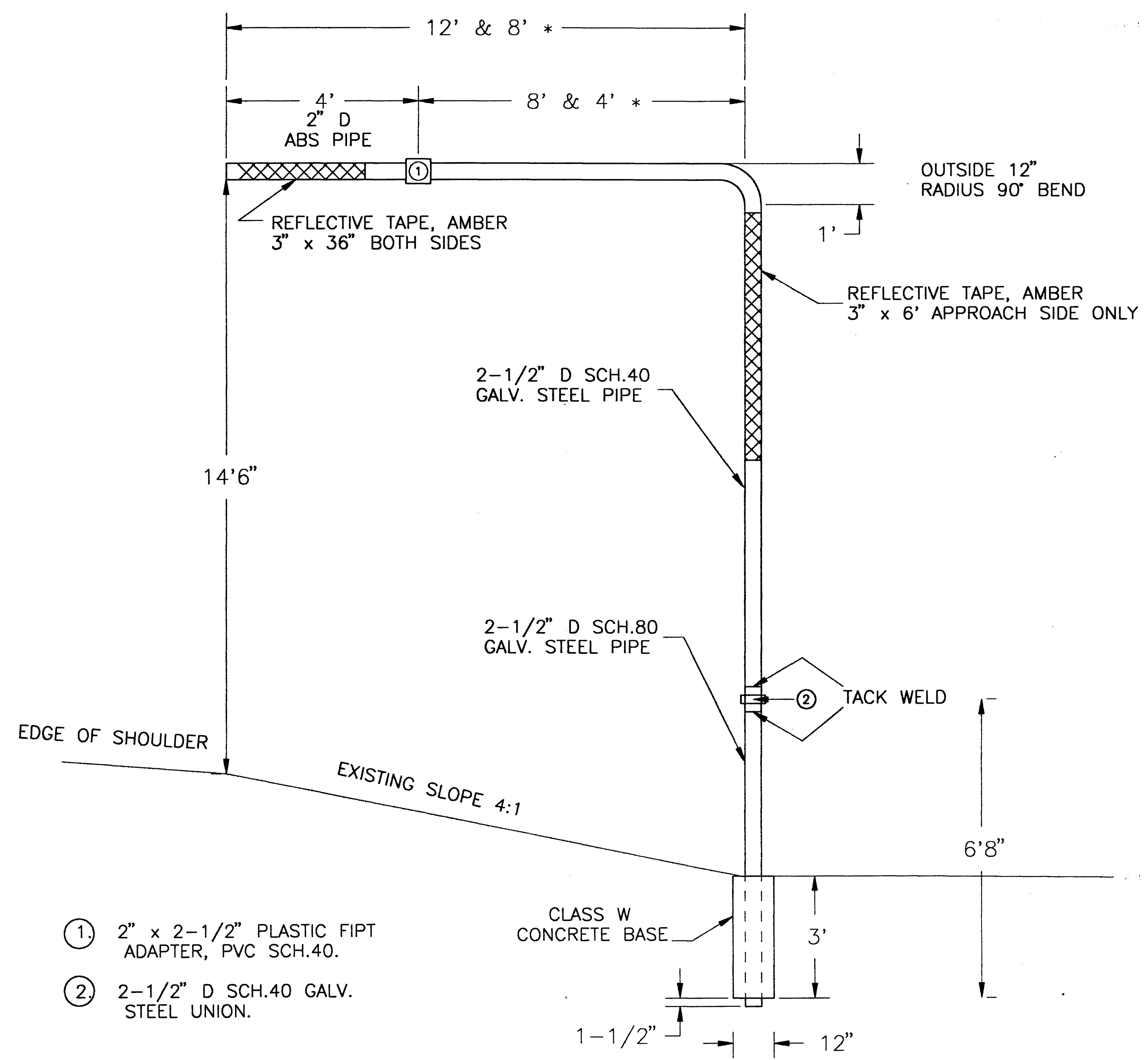
SIGNING NOTES

- SIGN LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- ALL SIGN INSTALLATIONS SHALL USE THE SLEEVE TYPE CONCRETE FOUNDATION AS DETAILED ON STANDARD DRAWING S-30.01
- POST EMBEDMENT SHALL BE SLEEVE TYPE SOIL EMBEDMENT. SEE STANDARD DRAWING S-30.01.
- EXISTING SIGNS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL NEW SIGNS ARE INSTALLED. THE CONTRACTOR'S OPERATION SHALL AT NO TIME LEAVE DUPLICATE OR CONFLICTING SIGNS.
- POST LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR USING CRITERIA FOR RURAL HIGHWAYS. ALL POSTS AND HARDWARE SHALL BE INCIDENTAL TO THE SIGNING BID ITEM.
- ALL I-3 SIGNS SHALL HAVE 8" UC AND 6" LC LETTERS.
- LEFT AND RIGHT OBJECT MARKERS SHALL BE INSTALLED DIRECTLY OPPOSITE EACH OTHER. LOCATE OBJECT MARKERS AS DIRECTED BY THE ENGINEER WITHIN 10 FEET OF THE END OF THE BRIDGE RAIL.
- EXISTING GENERAL SERVICE SIGNS (D9- SERIES) FOR FOOD, GAS, AND LODGING ADJACENT TO MCKINLEY WILDERNESS LODGE, DENALI CABINS, AND MCKINLEY VILLAGE SHALL NOT BE REPLACED BUT MAY BE RELOCATED. RELOCATION SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCIDENTAL TO ITEM 615(1).
- EXISTING SIGNS AND PARTS TO BE REMOVED SHALL BE SALVAGED, SEPARATED, AND DELIVERED TO THE DOT/PF MAINTENANCE YARD AT CANTWELL. THIS WORK SHALL BE INCIDENTAL TO ITEM 615(1).



AS-BUILT

RIGID POLE DELINEATOR DETAIL ✓



- ① 2" x 2-1/2" PLASTIC FIPT ADAPTER, PVC SCH.40.
- ② 2-1/2" D SCH.40 GALV. STEEL UNION.

DELINEATOR SUMMARY ✓

ITEM 615(5A) DELINEATORS, RIGID POLE		
STATION	LT/RT	NUMBER OF DELINEATORS
2040+00~	LT* & RT ✓	2 ✓
2042+00~	LT* & RT	2
2044+00~	LT* & RT	2
2046+00~	LT* & RT	2
2048+00~	LT* & RT	2
2050+00~	LT* & RT	2
2052+00~	LT* & RT	2
2054+00~	LT* & RT	2
2074+00~	LT & RT	2
2076+00~	LT & RT	2
2078+00~	LT & RT	2
2080+00~	LT & RT	2
2082+00~	LT & RT	2
2084+00~	LT & RT	2
2086+00~	LT & RT	2
2088+00~	LT & RT	2
2090+00~	LT & RT	2
2092+00~	LT & RT	2
2094+00~	LT & RT	2
TOTAL =		38 ✓

* USE 8' ARM ON LEFT INSTALLATION ✓

ITEM 615(6) DELINEATORS, FLEXIBLE TYPE D		
STATION	LT/RT	NUMBER OF DELINEATORS
398~ TO 422~	LT	13 ✓
454~ TO 472~	LT	10 ✓
TOTAL =		23 30

Note: Extra Delineators installed on ends of B.C.T.'s @ 57A. 298+63 LT., 304+92 RT., 307+02 LT., 356+00 LT., 373+50 LT., 2535+80 RT. & LT. = 7 TOTAL

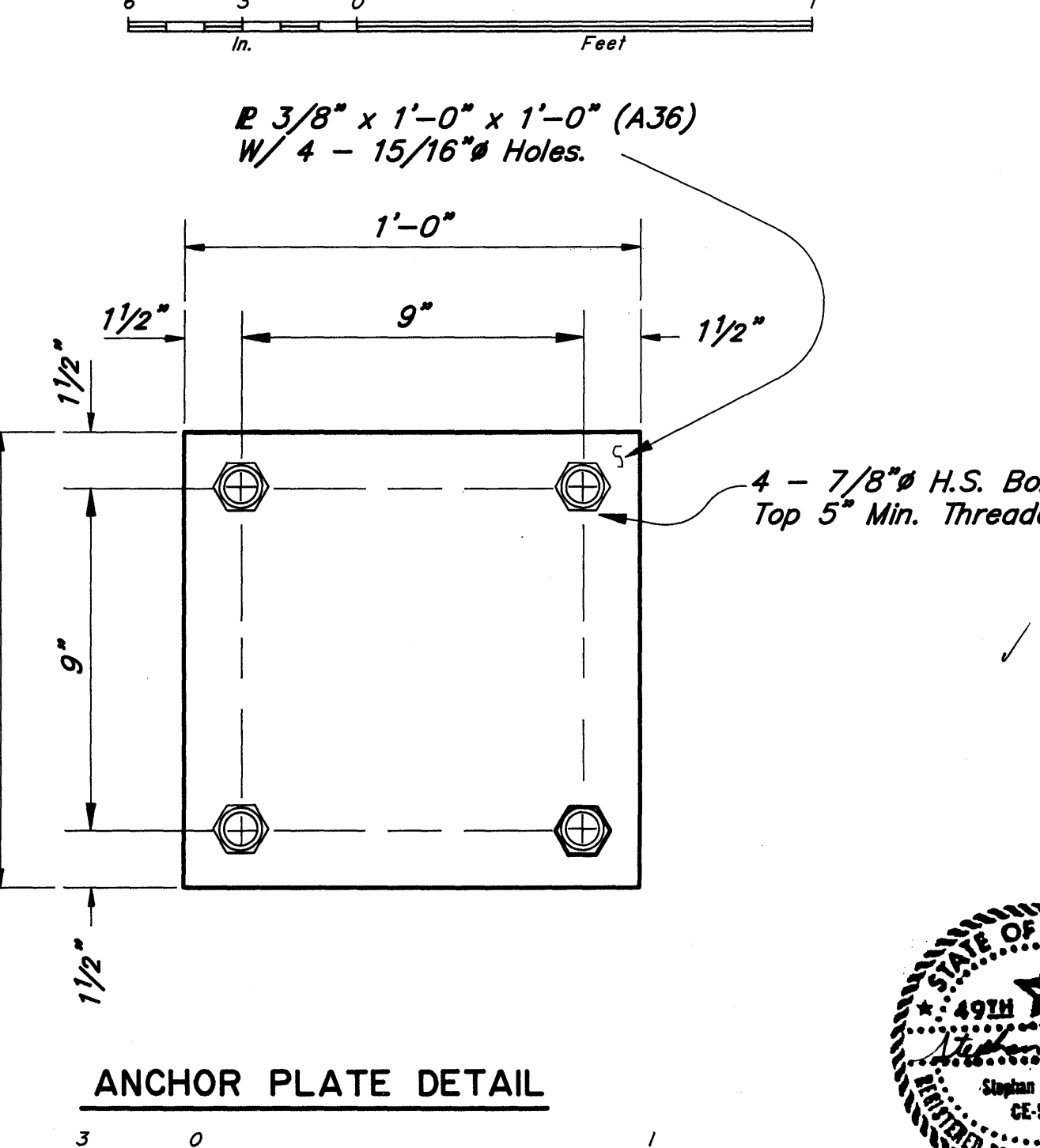
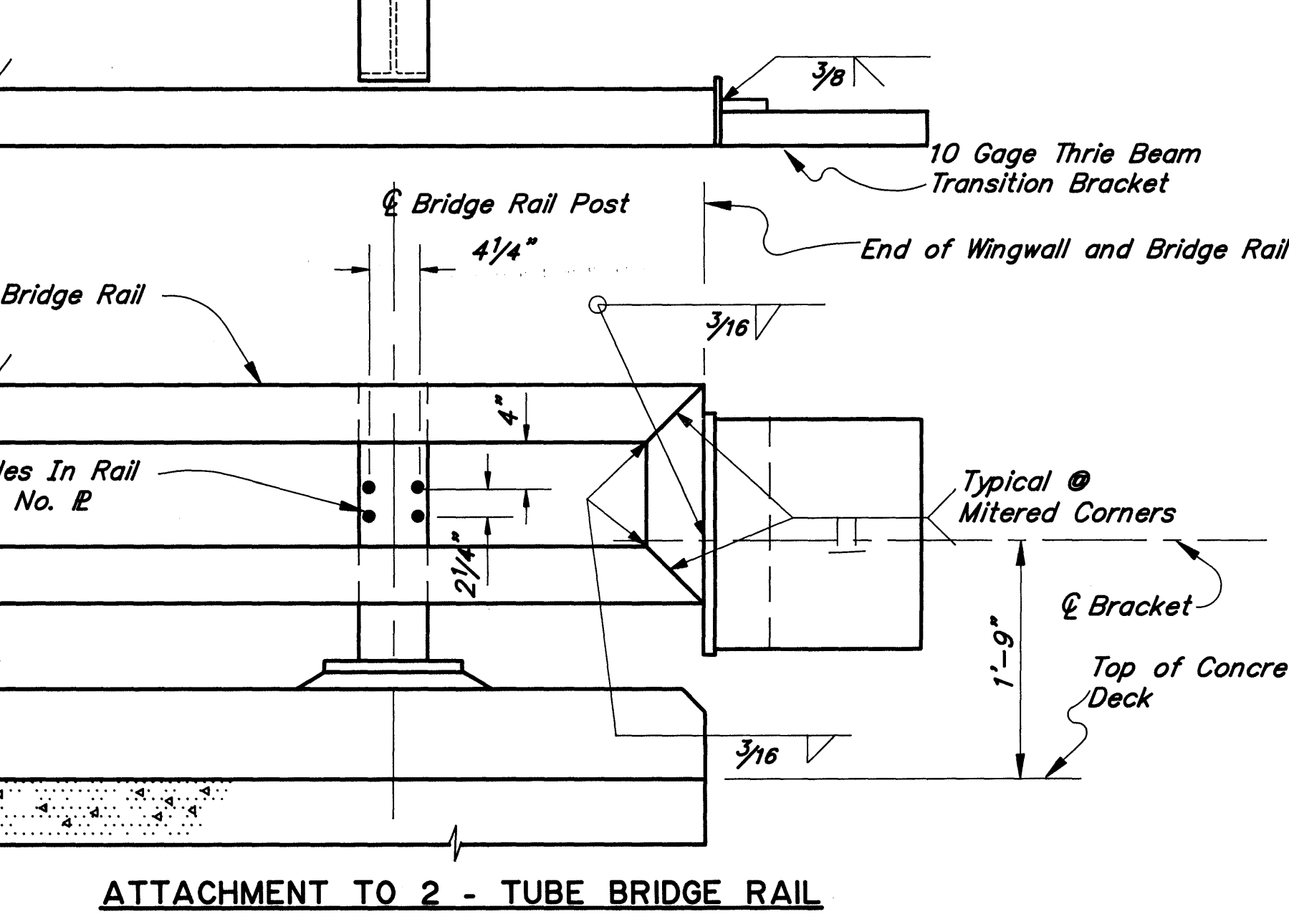
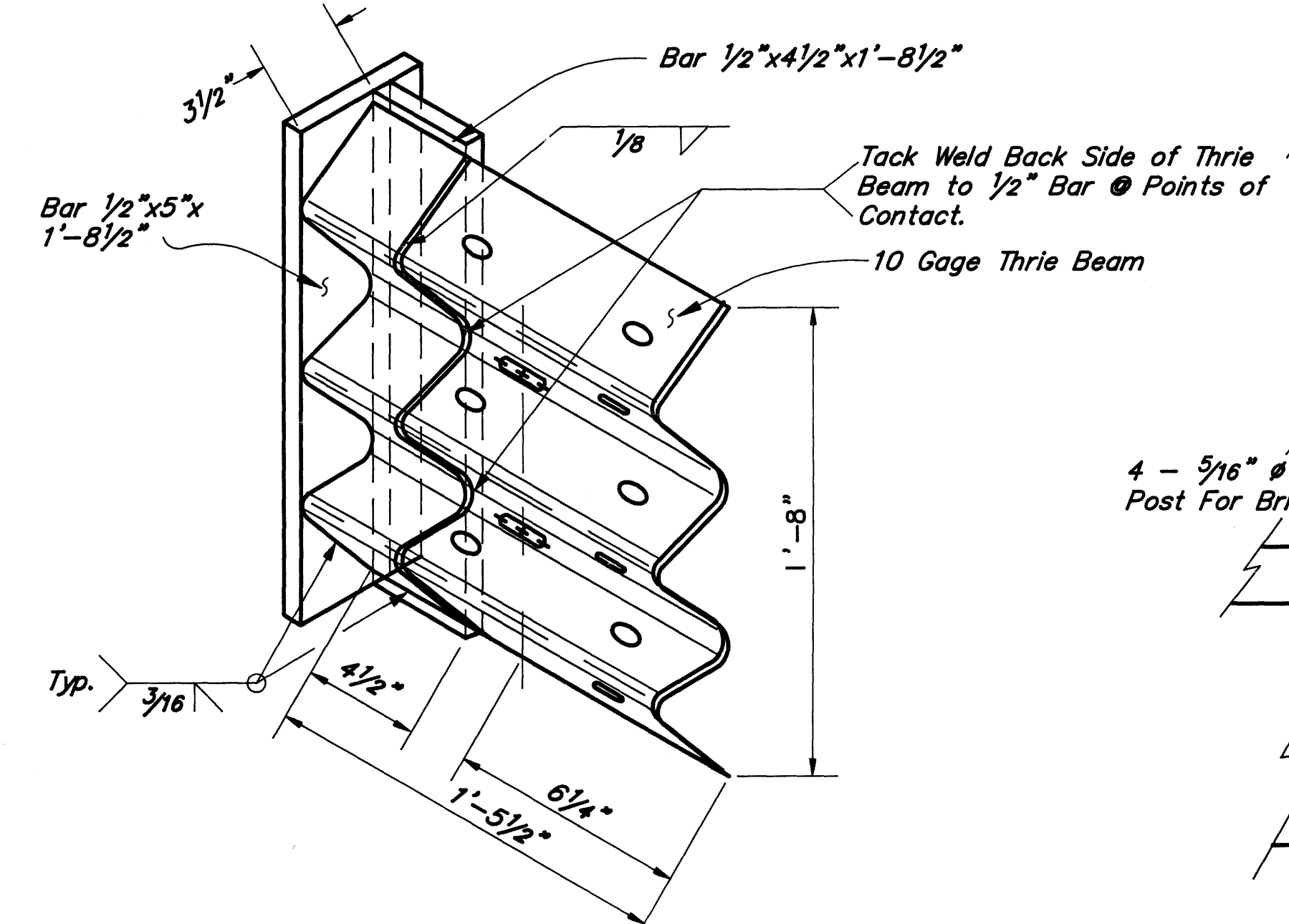
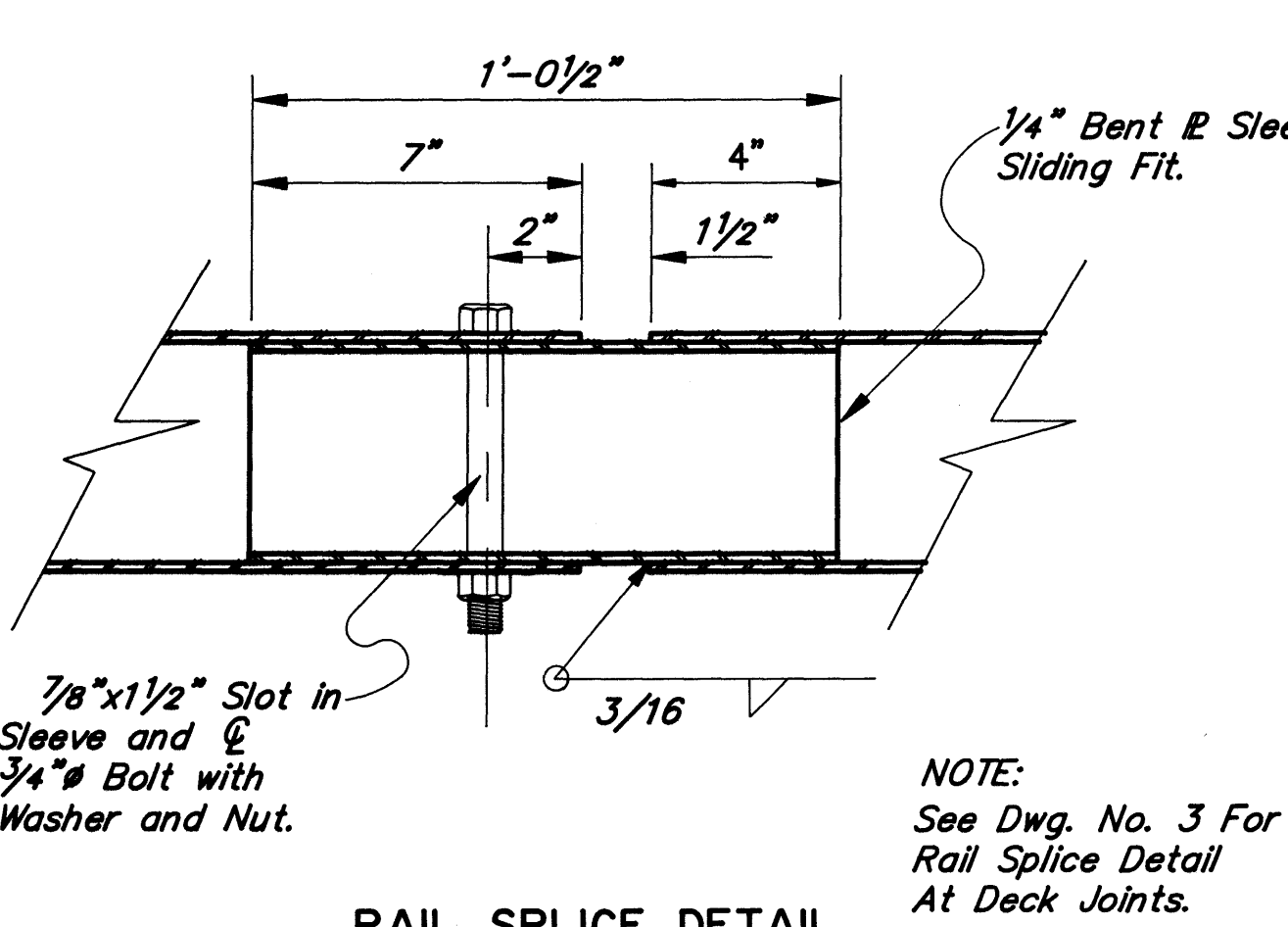
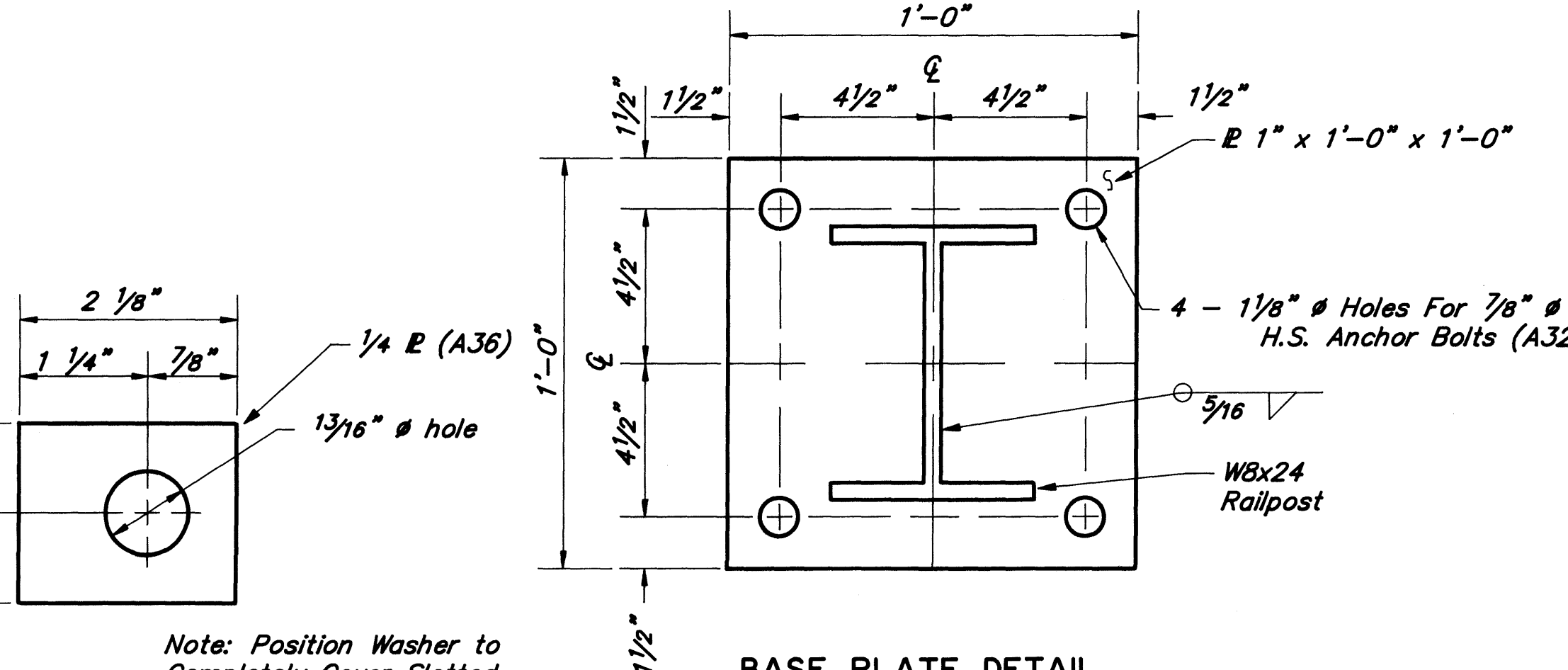
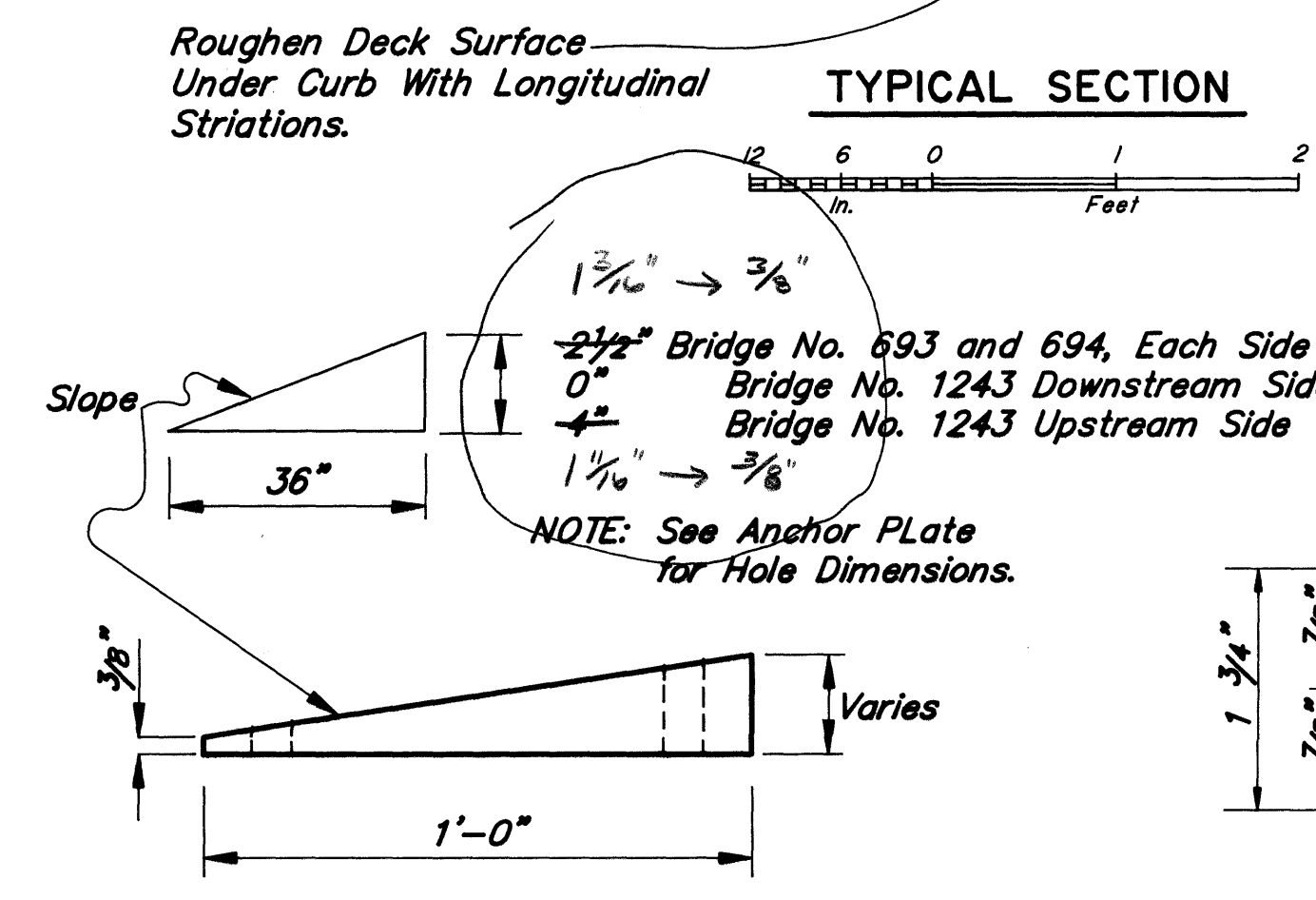
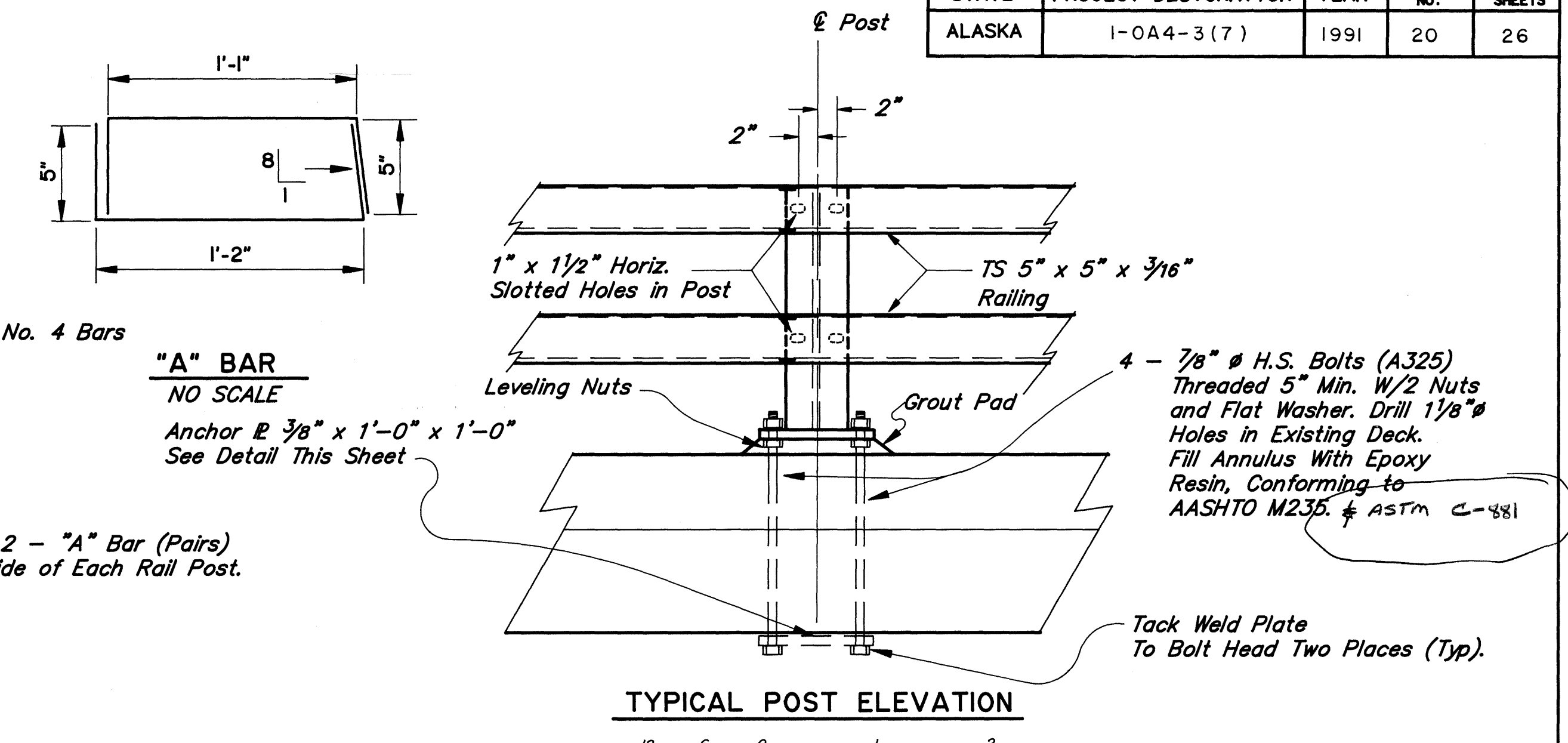
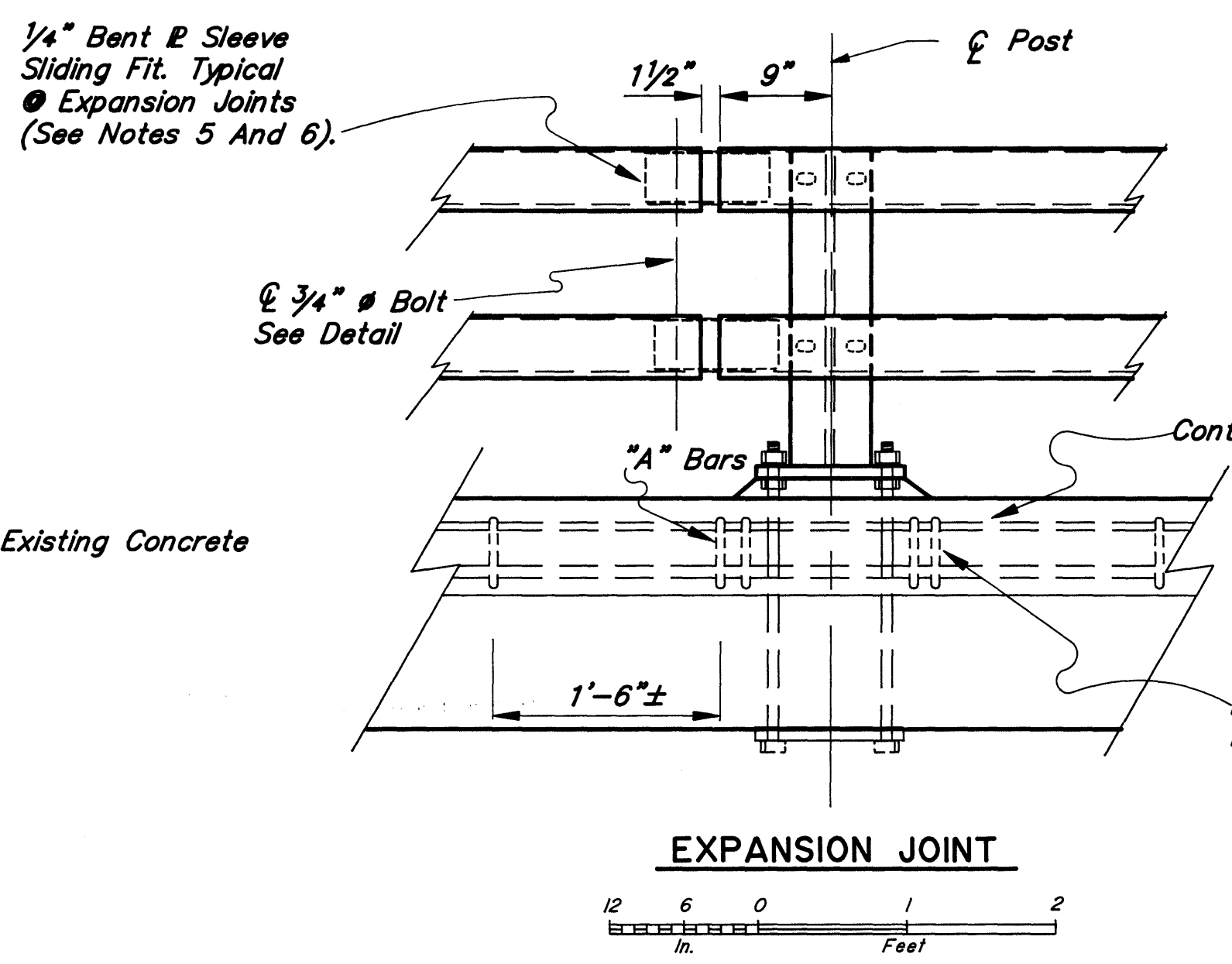
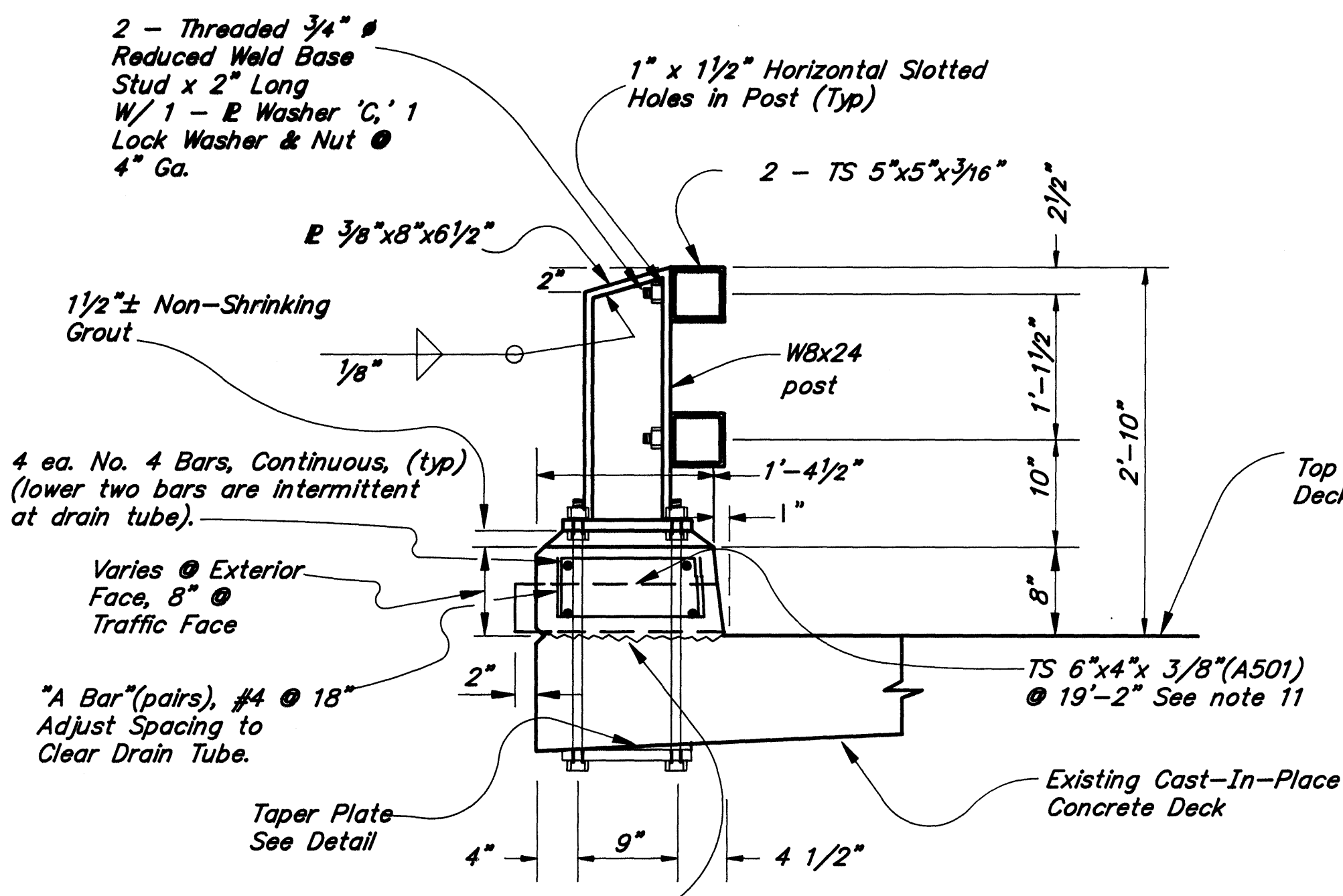
NOTES:

- FLEXIBLE DELINEATORS SHALL BE INSTALLED AT 200 FT. INTERVALS.
- IN GUARDRAIL AREAS MOUNT ON GUARDRAIL POST. ✓
- MINIMUM OFFSET IN AREAS OUTSIDE GUARDRAIL IS 8 FT. FROM SHOULDER.



A5-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-0A4-3(7)	1991	20	26



- NOTES**
- All railing, posts, anchor assemblies drain tubes and other steel components shall be galvanized after fabrication unless noted otherwise.
 - Remove existing bridge No. 16 plate from existing railpost and attach to new railing with 4-7/16 inch x 1 inch ribbed neck carriage bolts with steel tamper-proof nuts (McMaster-Carr 90084A030 or equal), galvanized or cadmium plated.
 - Locate bridge number plates on right hand side of approaching traffic at each end as shown, (typ.).
 - All machine bolts shall have locking nuts or lock washers.
 - Railing expansion joints must be provided at 50' maximum intervals throughout the railing and at deck expansion joints. Railing shall be continuous over 2 posts minimum.
 - Railing expansion joints shall be located immediately adjacent to a rail post.
 - Posts shall be adjusted to a plumb position.
 - Curb concrete and associated reinforcing shall be incidental to metal bridge railing. Minimum concrete cover shall be 1 1/2 inch. Reinforcing steel shall be epoxy coated grade 60.
 - Thrie beam guardrail transition "NESTED" sections shall be installed one section on each side of transition bracket, typical either end of bridge. Ref. Std. Dwg. G-29W or G-29S.
 - Drill 1 1/8 inch dia. holes through existing cast-in-place deck to install anchor bolts.
 - Drain tube installation only to Nenana River @ Windy Bridge No. 1243 at downstream side. Stagger drain spacing at alternate posts. Bevel drain tube at curb face.

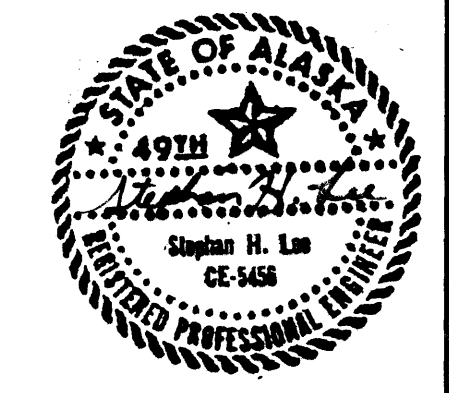
PARKS HIGHWAY, MILE 216
See C.O.#7

REHABILITATION
BRIDGE RAILING I

STATE of ALASKA
DEPARTMENT of TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA



693, 694
BRIDGE NO'S. 1243
DWG. NO. 1



C:\CAD\154M\693-1
4/16/1991 10:42
Scale = 1.00
Drawn By: SJS

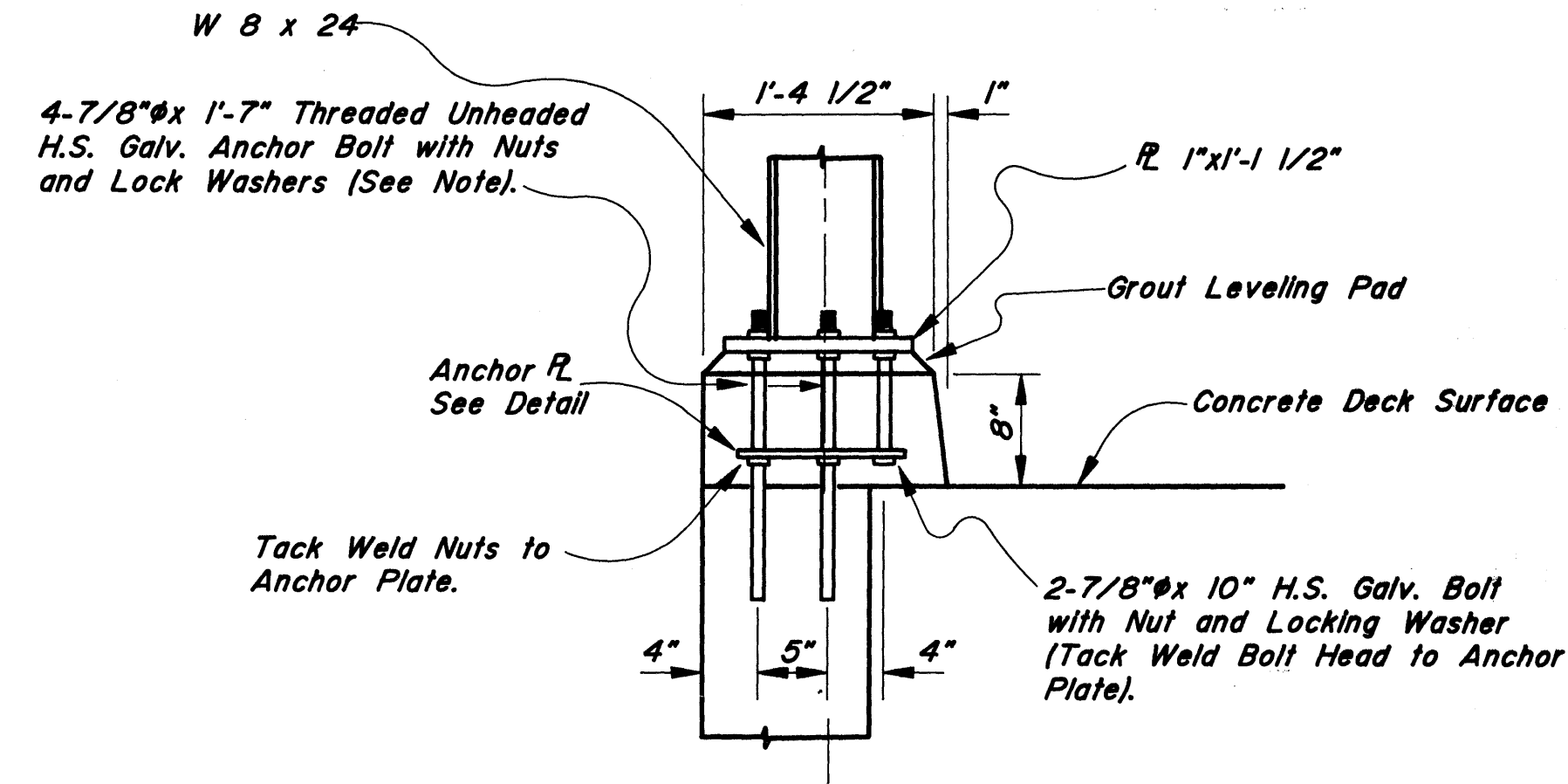
Designed By: S.H.L. Date: 3/19/91
Checked By: L.A.C. Date: 4/1/91
Drawn By: S.J.S. Date: 3/19/91
Checked By: R.W.A. Date: 4/1/91
Traced By:

AS-BUILT

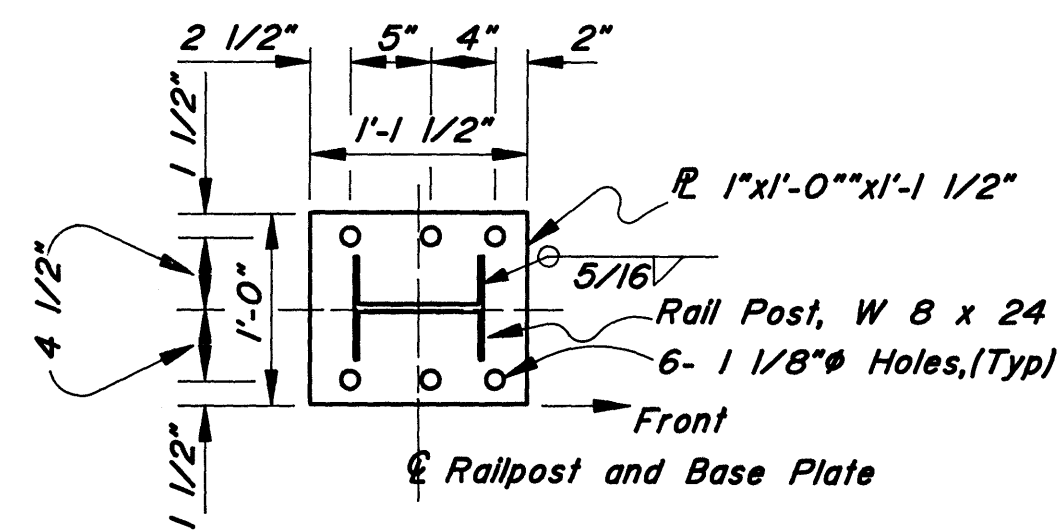
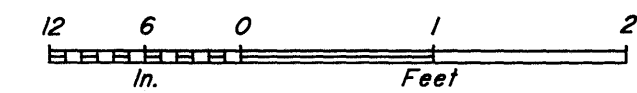
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-OA4-3(7)	1991	22	26

NOTE:

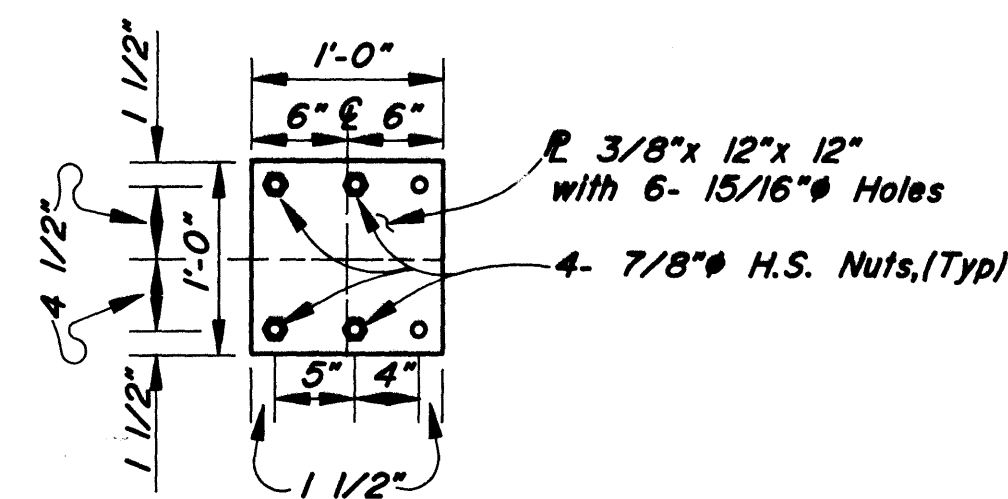
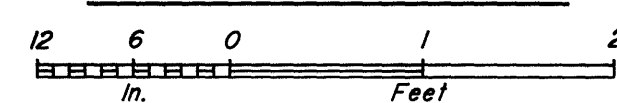
ANCHOR BOLTS: Drill 1 1/8" hole and set anchor bolts with epoxy resin mortar (AASHTO M-235, TYPE III, GRADE 2, CLASS B). Mix and place resin in accordance with manufacturer's recommendations. Alternately, self contained epoxy-bolt combinations that mix in the hole may be installed per the manufacturer's recommendation and with the approval of the engineer.



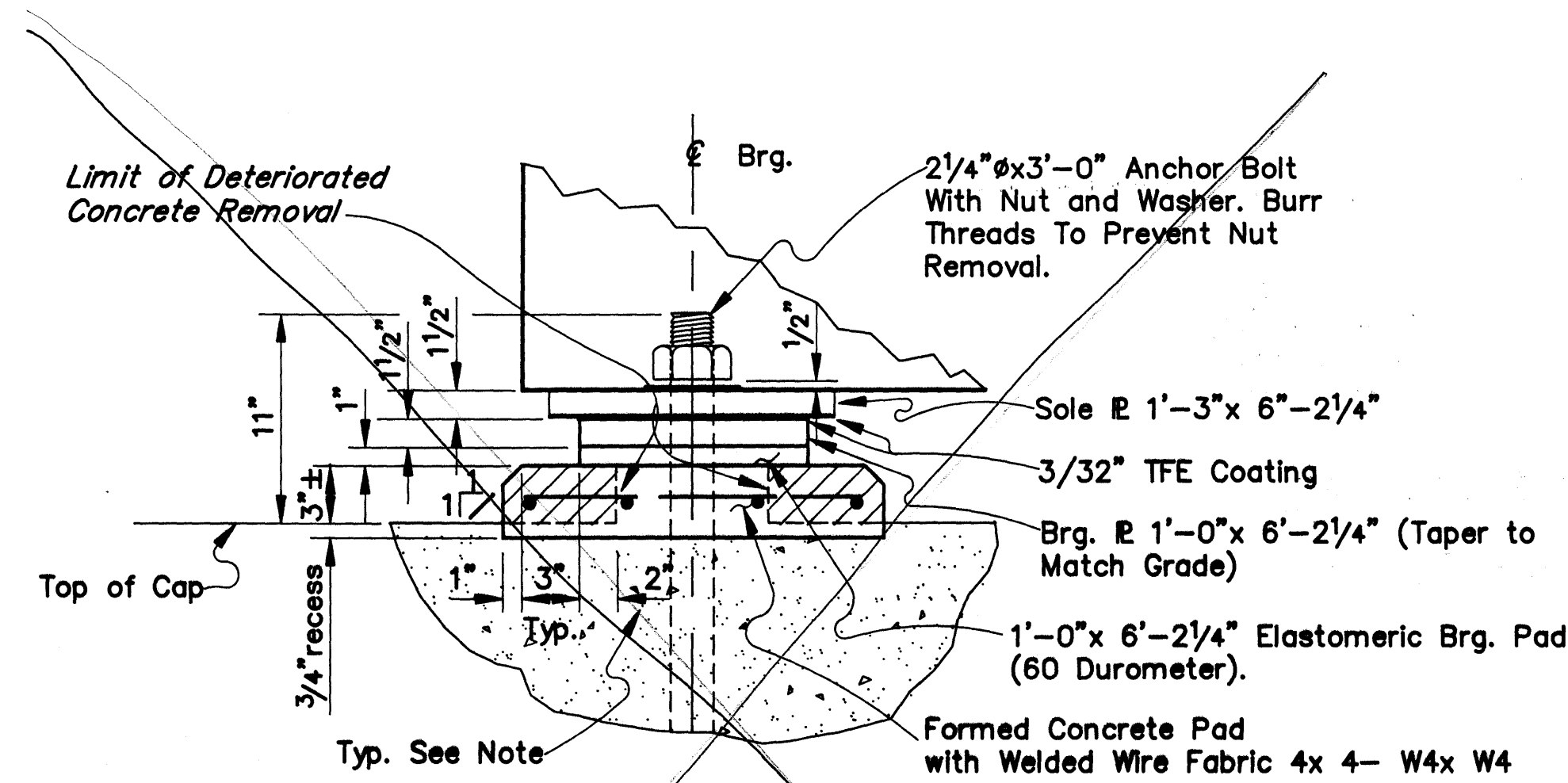
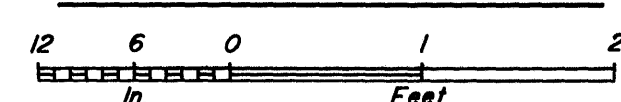
RAIL POST AT WINGWALL
(TYPICAL AT EACH BRIDGE)



BASE PLATE DETAIL

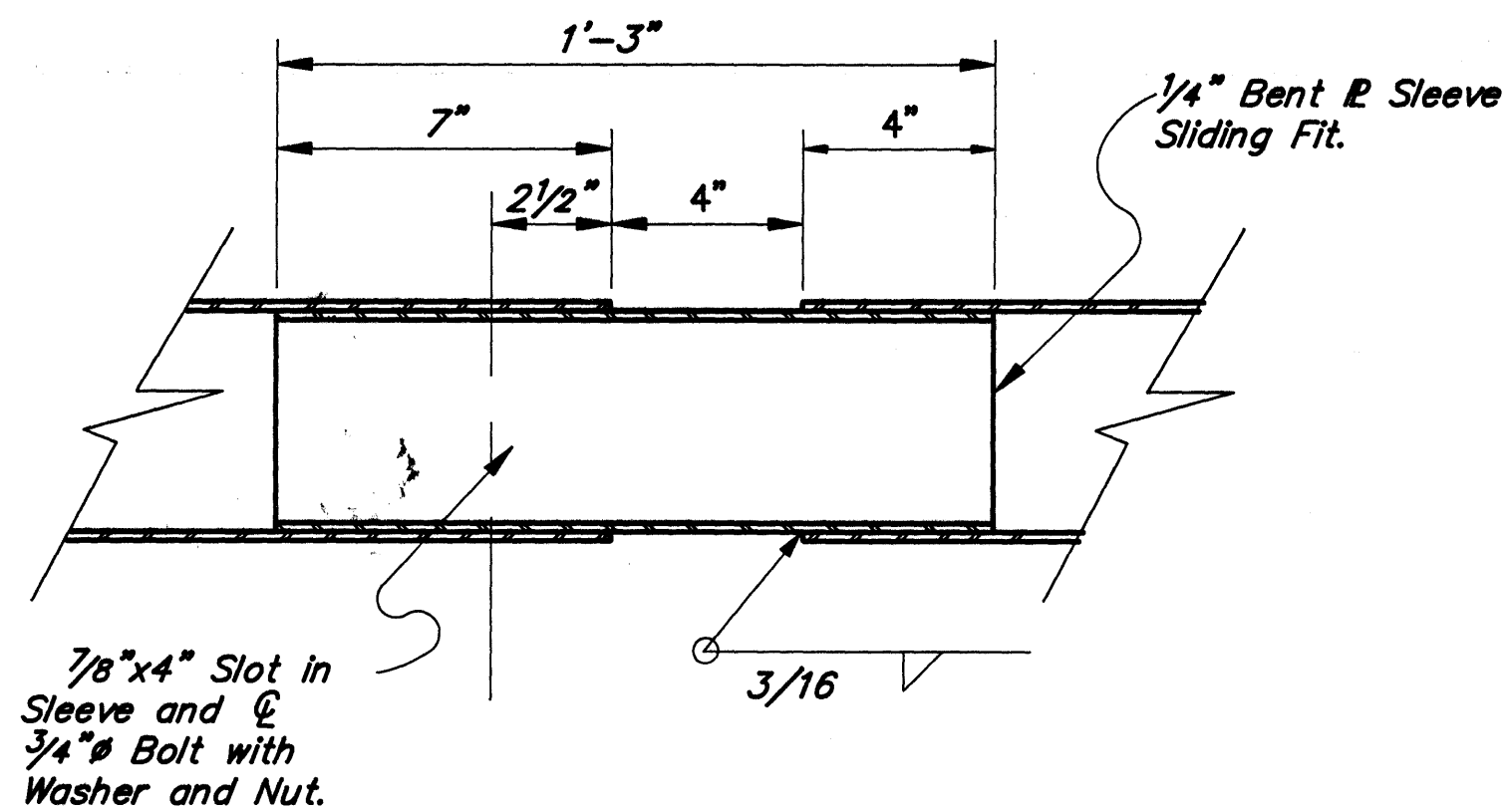
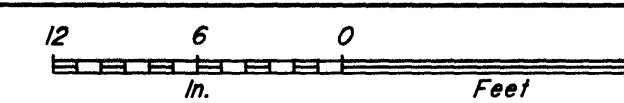


ANCHOR PLATE DETAIL

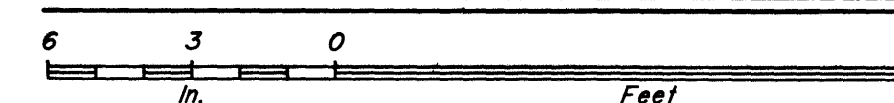


NOTE: Remove Deteriorated Concrete a Maximum of 2" Inward From Perimeter of outside Edge of Brg. Plate on All Sides. Replace with Grout per 504- 3.02.

EXISTING CONCRETE PAD - SIDE VIEW



RAIL SPLICE DETAIL AT DECK JOINTS



As-Built.
This work had been done previously by M.O.

Designed By: SHL Date: 3/19/91
Checked By: LAC Date: 4/1/91
Drawn By: SJS Date: 3/19/91
Checked By: RJA Date: 4/1/91
Traced By: Date:

AS-BUILT



8 C 1 (20) 54M 183-3
7/20/1991 8:33
Scale = 1/8" = 1'-0"
Drawn By: SIS

PARKS HIGHWAY, MILE 216
REHABILITATION
BRIDGE RAILING 3

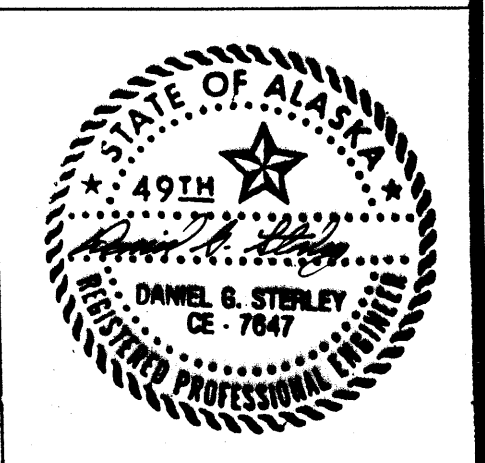
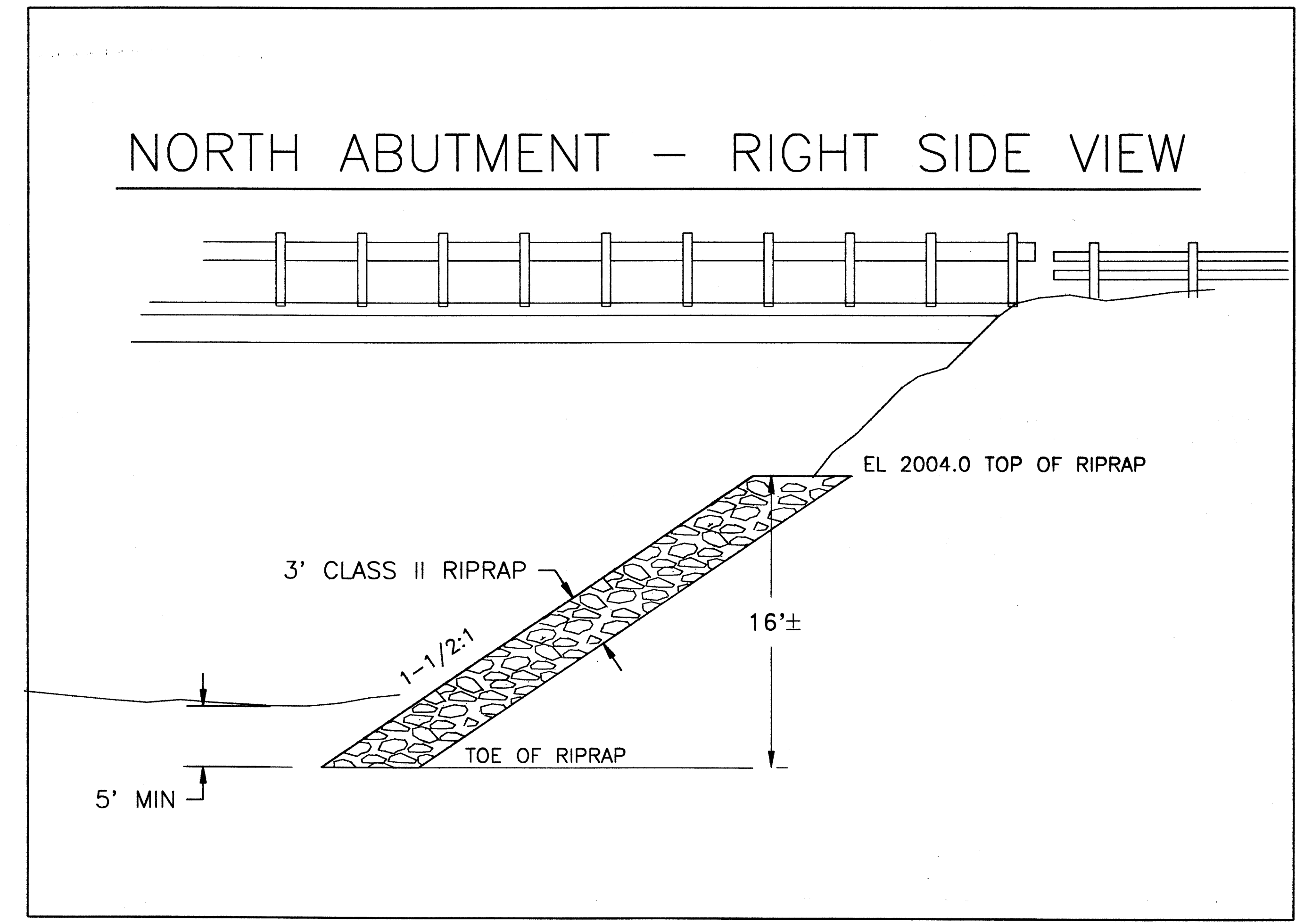
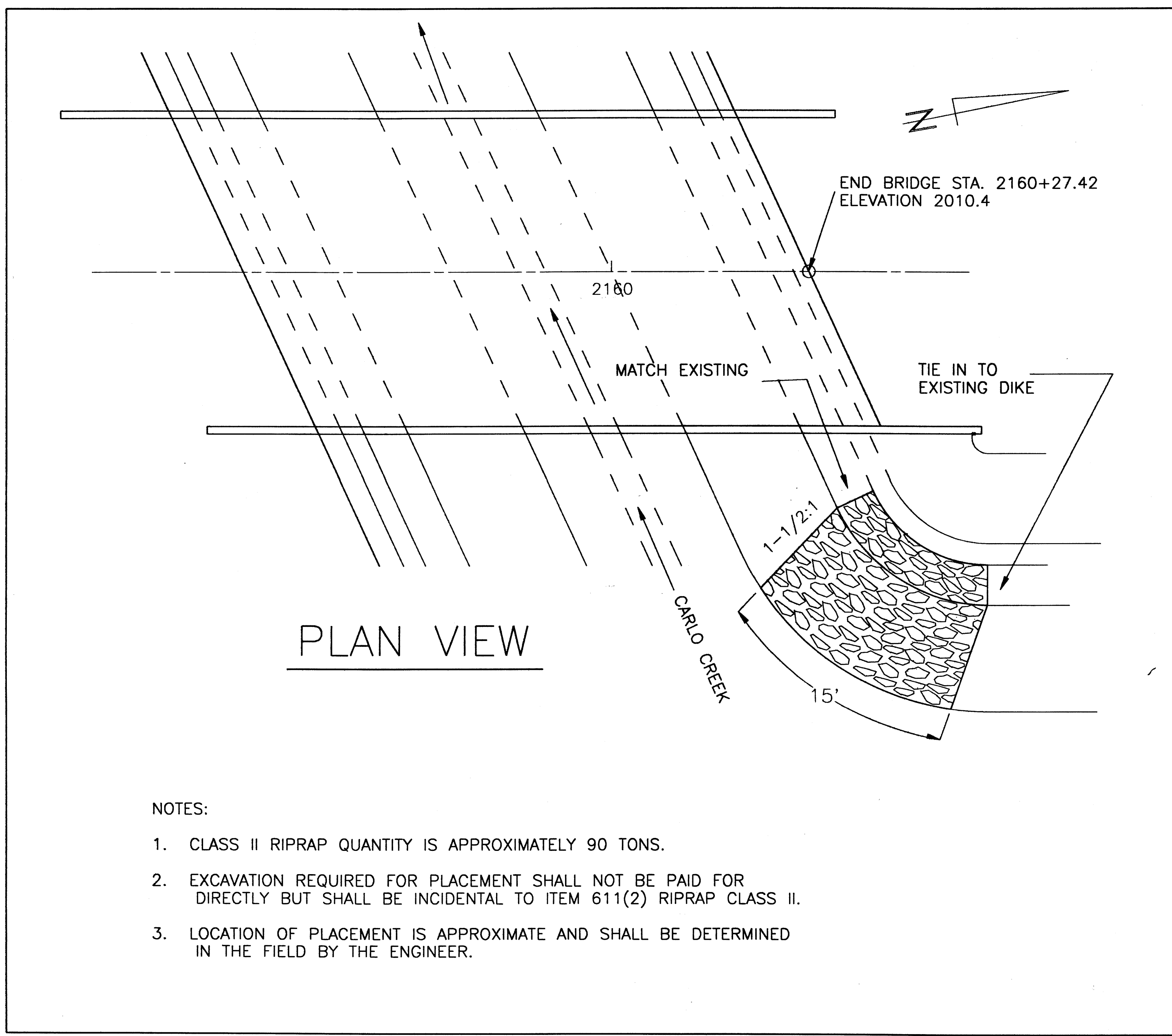
STATE of ALASKA
DEPARTMENT of TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA



693, 694
BRIDGE NO. 1243
DWG. NO. 3

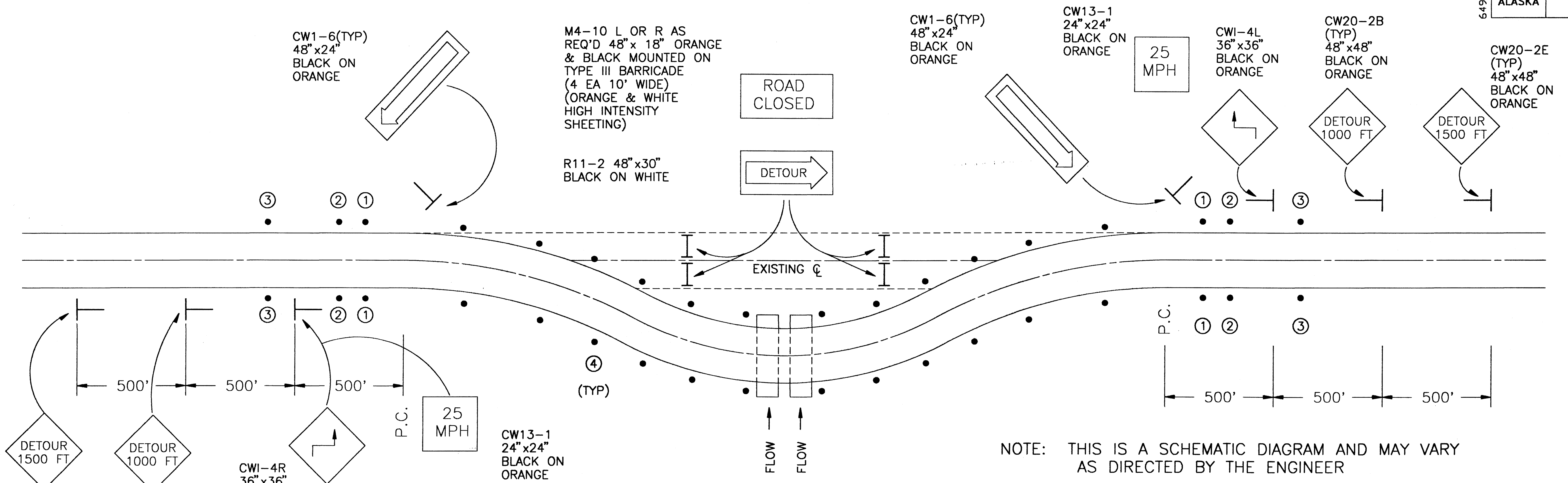
STATE	PROJECT DESIGNATION	YEAR	SHEET #	TOTAL SHEETS
ALASKA	I-OA4-3(7)	1991	23	26

CARLO CREEK BRIDGE RIPRAP REHABILITATION NORTH RIGHT ABUTMENT DETAILS



AS-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-OA4-3(7)	1991	24	26



NOTE: THIS IS A SCHEMATIC DIAGRAM AND MAY VARY AS DIRECTED BY THE ENGINEER

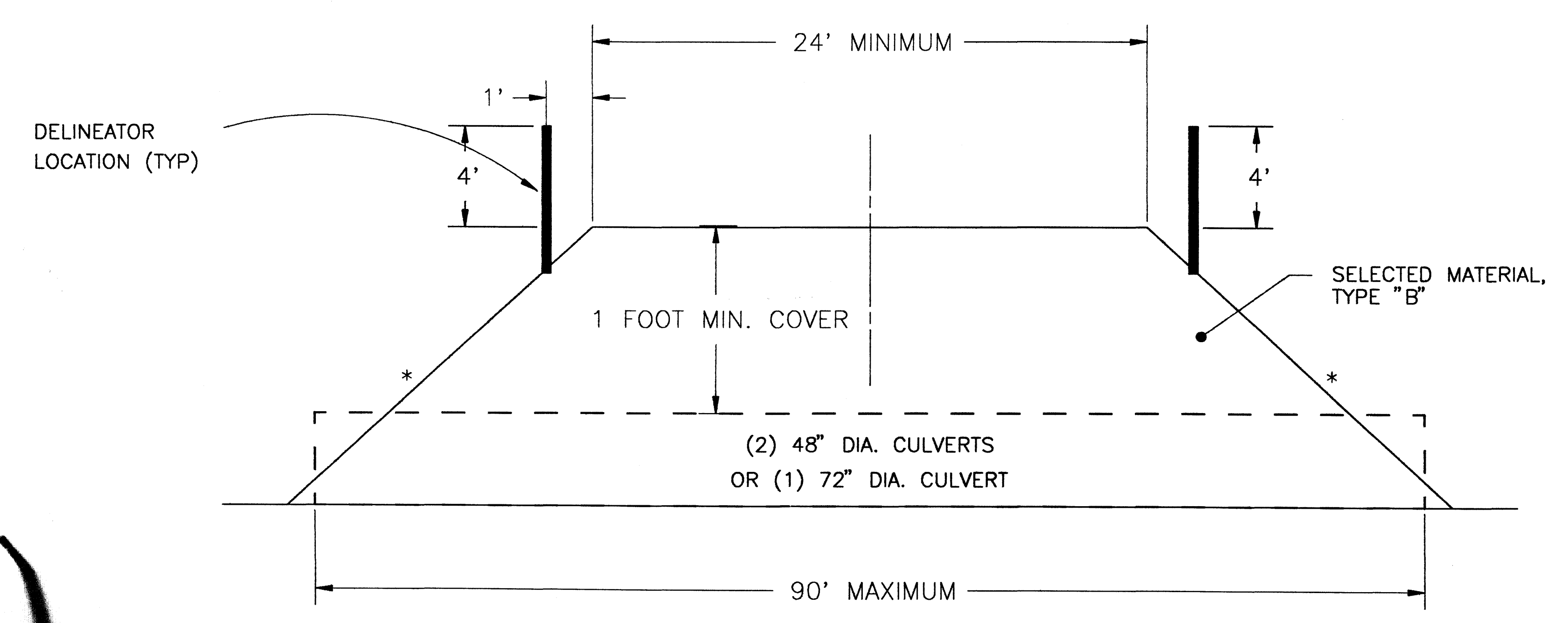
SLIME CREEK DETOUR TRAFFIC MAINTENANCE SET-UP

(ALL TRAFFIC-CONTROL DEVICES SHALL BE INCIDENTAL TO ITEM 643(25), TEMPORARY DETOUR)

NO SCALE

NOTES:

- DELINEATOR**
 - 90' FROM P.C. OR P.T.
 - 240' FROM P.C. OR P.T.
 - 540' FROM P.C. OR P.T.
 - DELINEATORS SHALL ALSO BE PLACED ON BOTH SHOULDERS OF THE DETOUR AT A MAXIMUM SPACING OF 50 FT.
- ALL DELINEATORS SHALL BE 3"x6" TYPE A WHITE. SEE STANDARD DRAWING T-03.01 FOR GUIDE MARKER (DELINEATOR) DETAILS.
- ALL BARRICADES AND SIGNS SHALL BE FABRICATED WITH TYPE II (ENCAPSULATED LENS) REFLECTIVE SHEETING.
- CONSTRUCTION SIGNS SHALL BE INSTALLED ON POSTS USING A 5 FT. MOUNTING HEIGHT TO THE BOTTOM OF SIGNS.
- THE DETOUR ALIGNMENT SHALL HAVE A MAXIMUM OF 20' CURVES WITH A MAXIMUM OF 30' DEFLECTIONS. THE GRADE SHALL BE CONSTRUCTED AND MAINTAINED AS APPROVED BY THE ENGINEER SO THAT VEHICLES CAN PROCEED THRU THE DETOUR AT 30 MPH.
- DURING DUSK OR DARKNESS THE TYPE III BARRICADES SHALL HAVE TWO FLASHING WARNING LIGHTS EACH AND WARNING SIGNS SHALL HAVE ONE FLASHING WARNING LIGHT EACH.
- THE DETOUR SHALL BE CONSTRUCTED WITHIN DOT/PF RIGHT OF WAY.

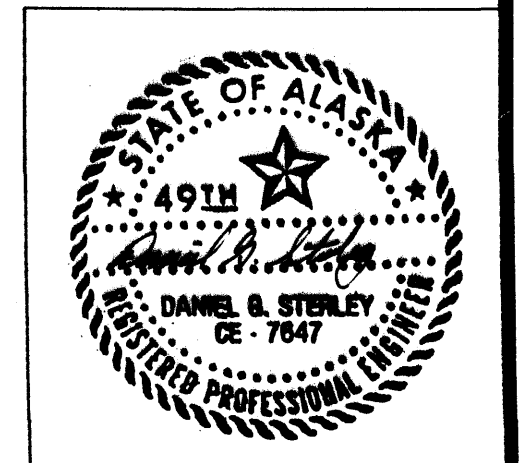


DETOUR TYPICAL SECTION

NOT TO SCALE

• SEE STANDARD SLOPE TABLE

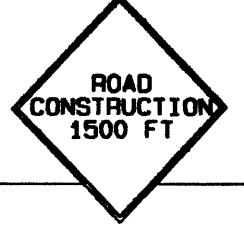
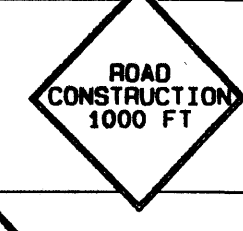
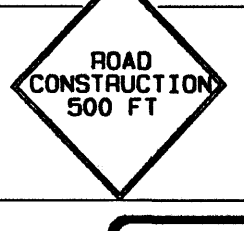
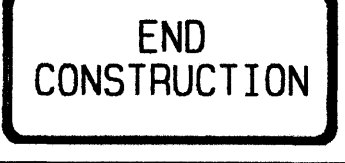
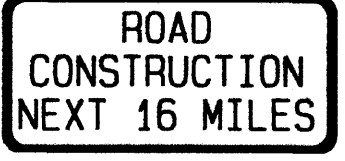
AS-BUILT

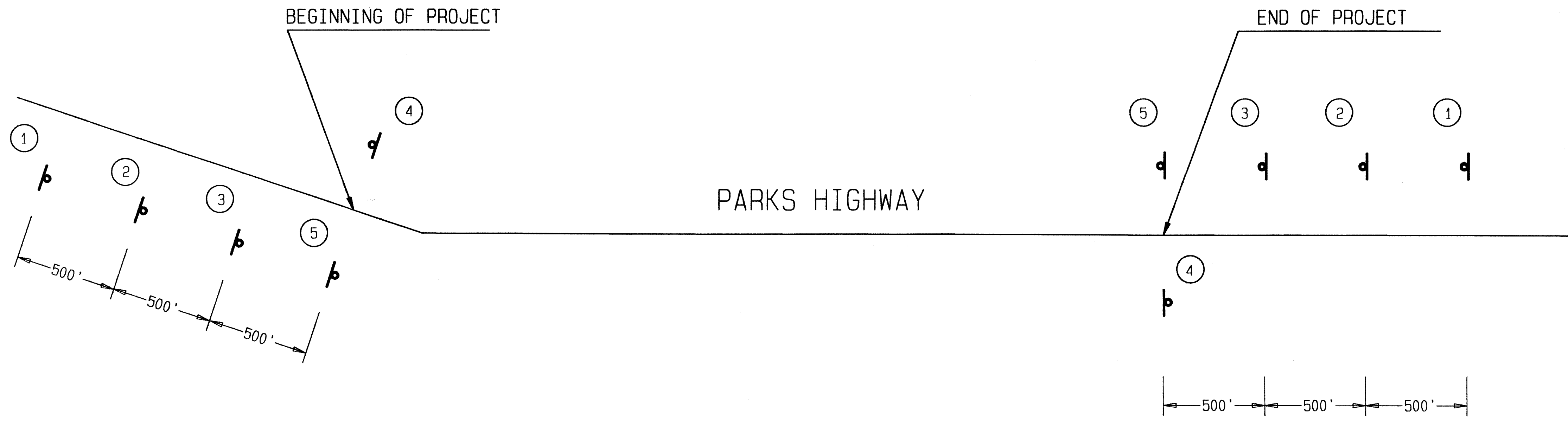


PERMANENT CONSTRUCTION SIGNING

TRAFFIC CONTROL PLAN

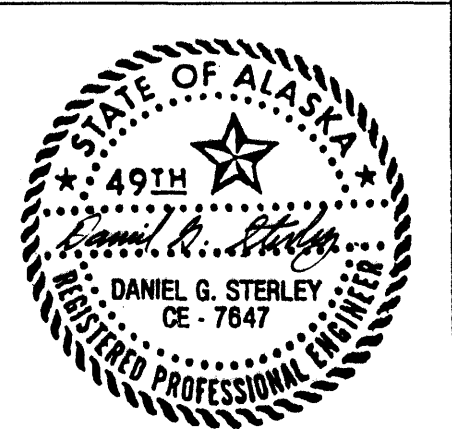
1. TAPER LENGTHS AT LANE CLOSURES WITH FLAGGERS SHALL BE 50 FT. CHANNELIZING DEVICE SPACING AT THESE LOCATIONS SHALL BE 10 FT.
2. TAPER LENGTHS FOR LANE SHIFTING OTHER THAN LANE CLOSURES WITH FLAGGERS SHALL BE IN ACCORDANCE WITH ALASKA TRAFFIC MANUAL. CHANNELIZING DEVICE SPACING AT THESE LOCATIONS SHALL BE 50 FT. ON TANGENTS AND CURVES WITH POSTED SPEEDS GREATER THAN 35 MILES PER HOUR.
3. ALL SITE SPECIFIC TRAFFIC CONTROL PLANS SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

PERMANENT CONSTRUCTION SIGNING SUMMARY (PAY ITEM 643(3))			
#	CODE	LEGEND	SIZE IN.
①	CW20-1E		48x48
②	CW20-1B		48x48
③	CW20-1A		48x48
④	G20-2		60x24
⑤	G20-1		60x36

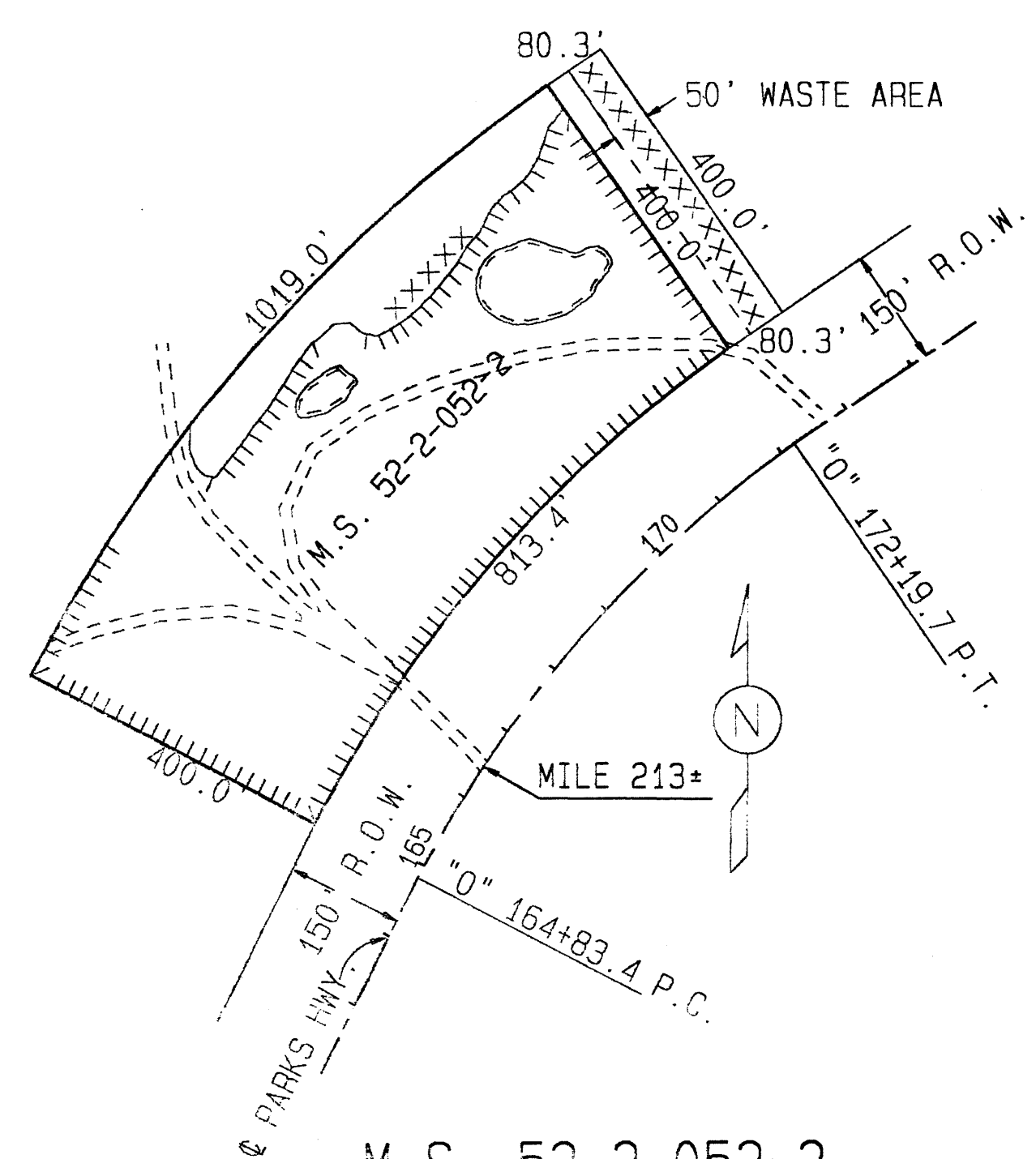


AS-BUILT

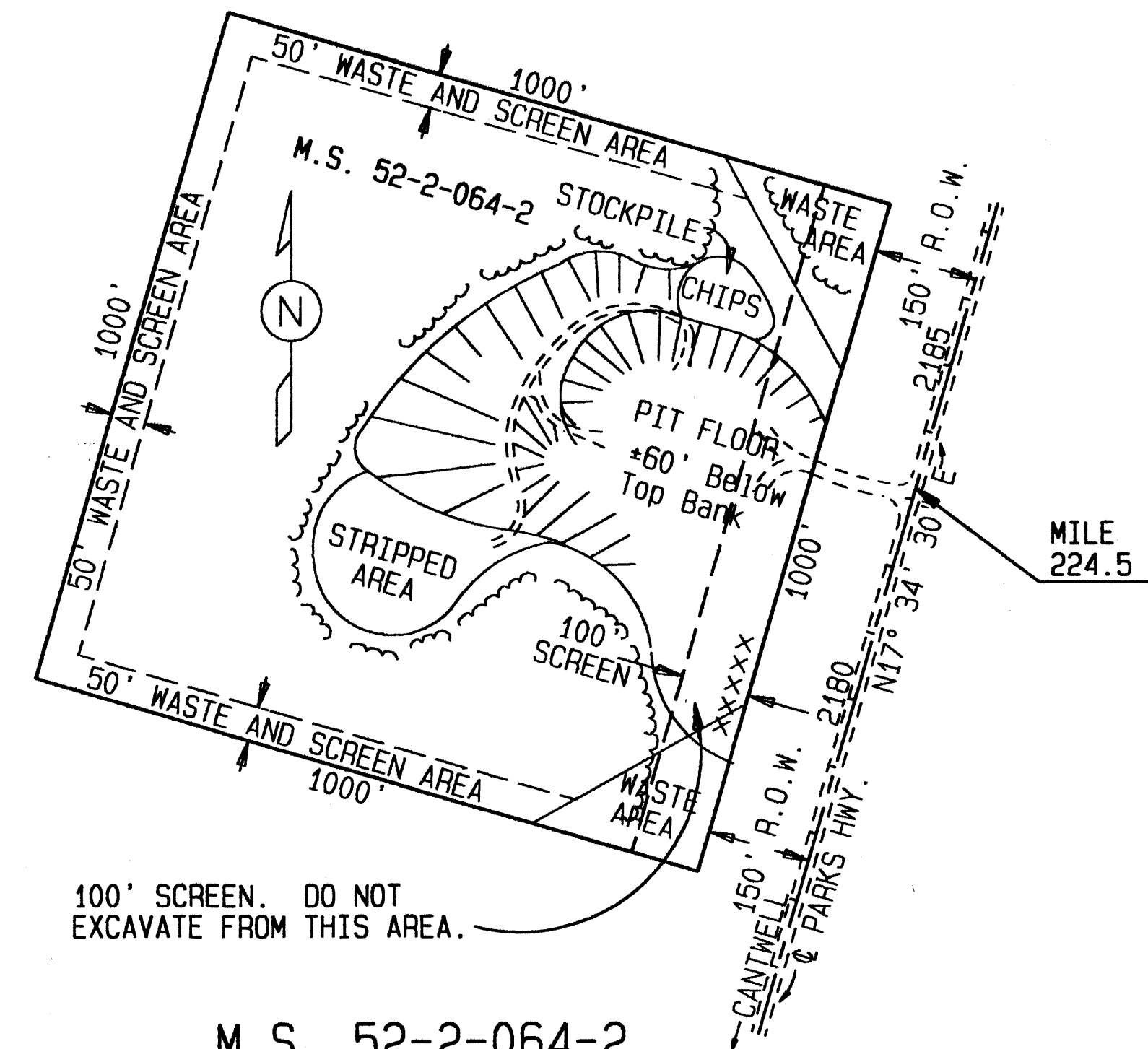
PERMANENT CONSTRUCTION SIGNING



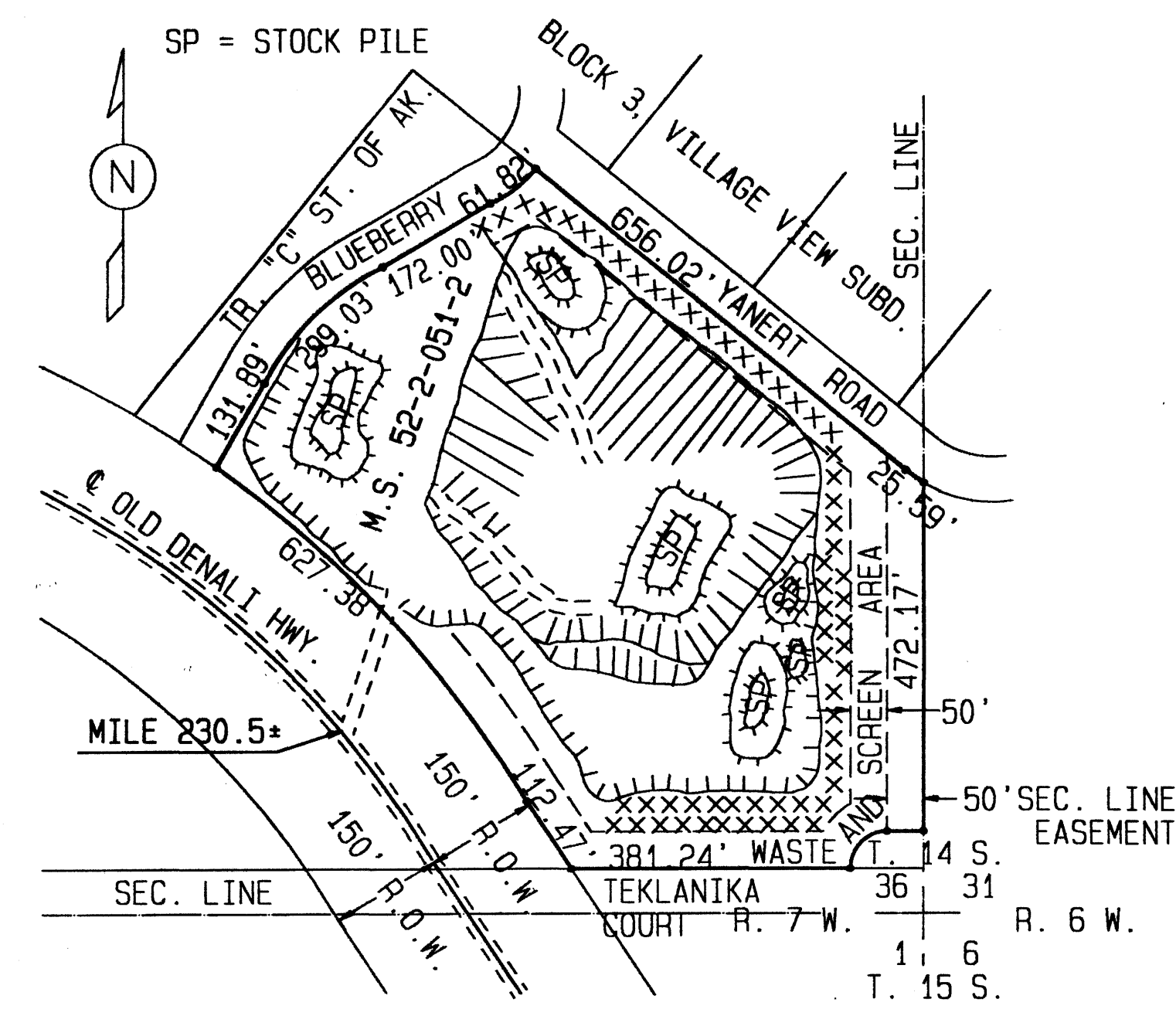
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	I-OA4-3 (7)	1991	26	26



M.S. 52-2-052-2
AHTNA, INC.
STATE MATERIAL RIGHTS

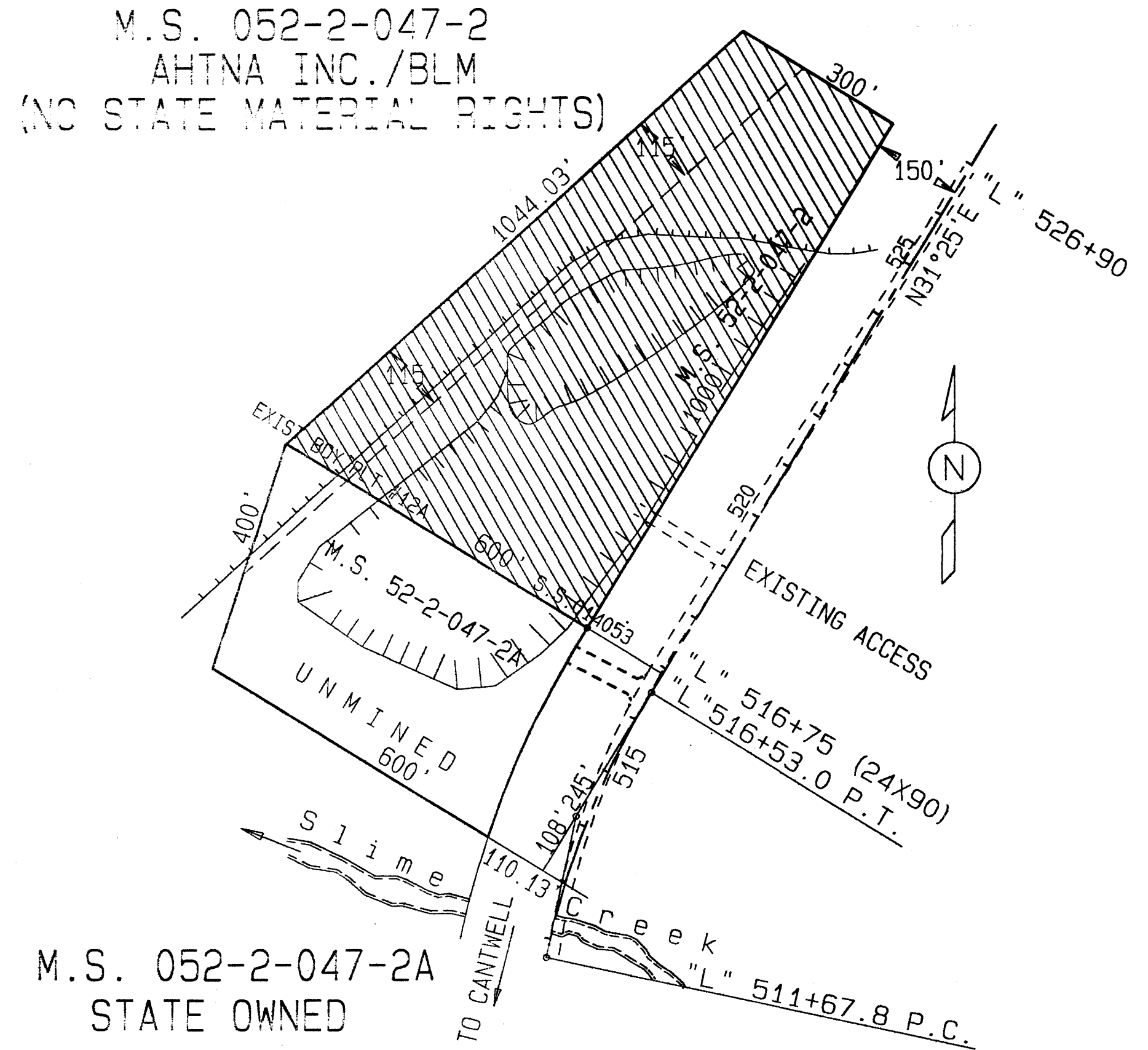


M.S. 52-2-064-2
AHTNA, INC.
STATE MATERIAL RIGHTS

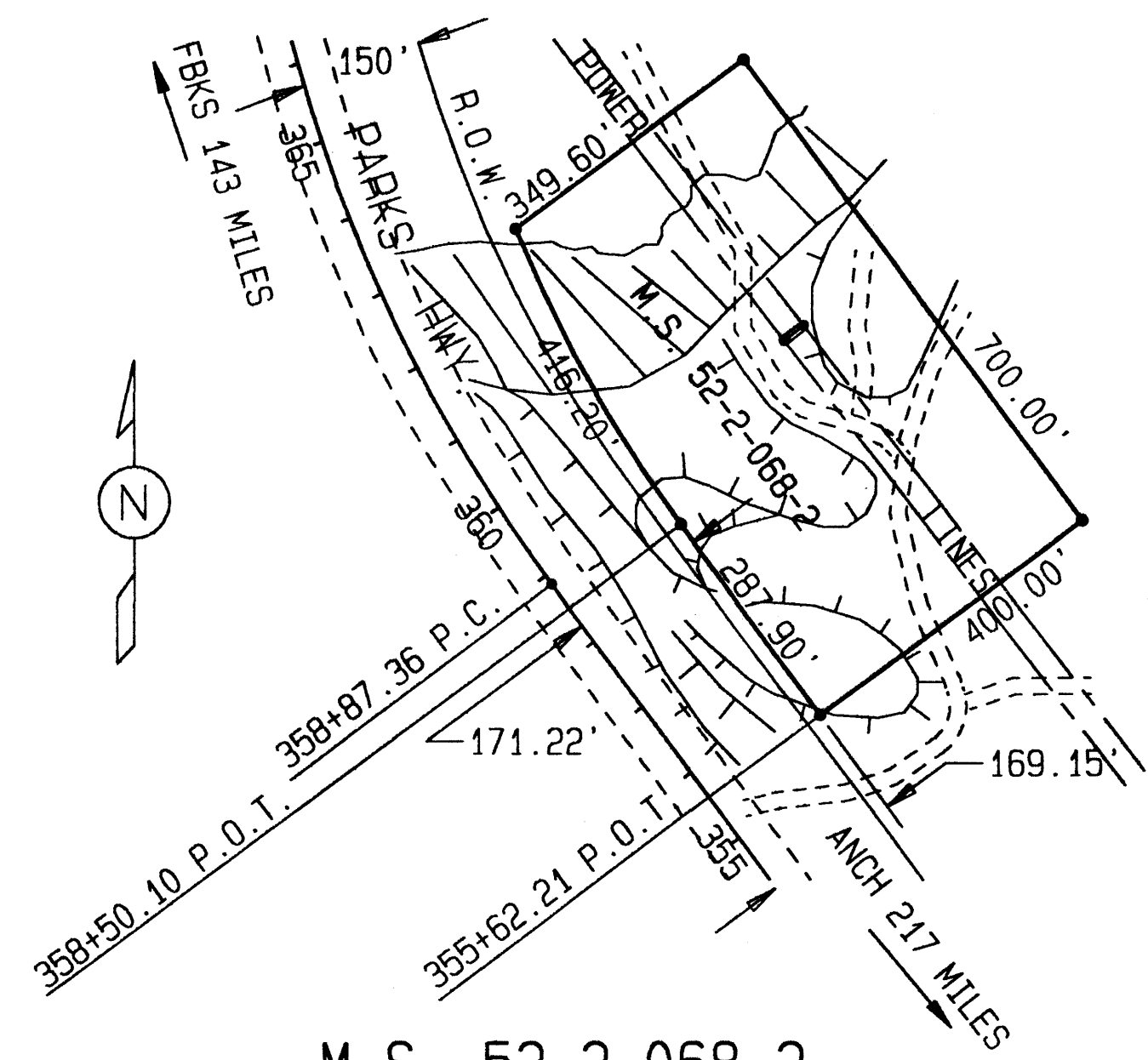


M.S. 52-2-051-2
STATE OWNED

NOTE: USE OF MATERIAL BENEATH THE PRESENT DEPTH OF THE ABOVE SITE IS SUBJECT TO A PUBLIC HEARING.



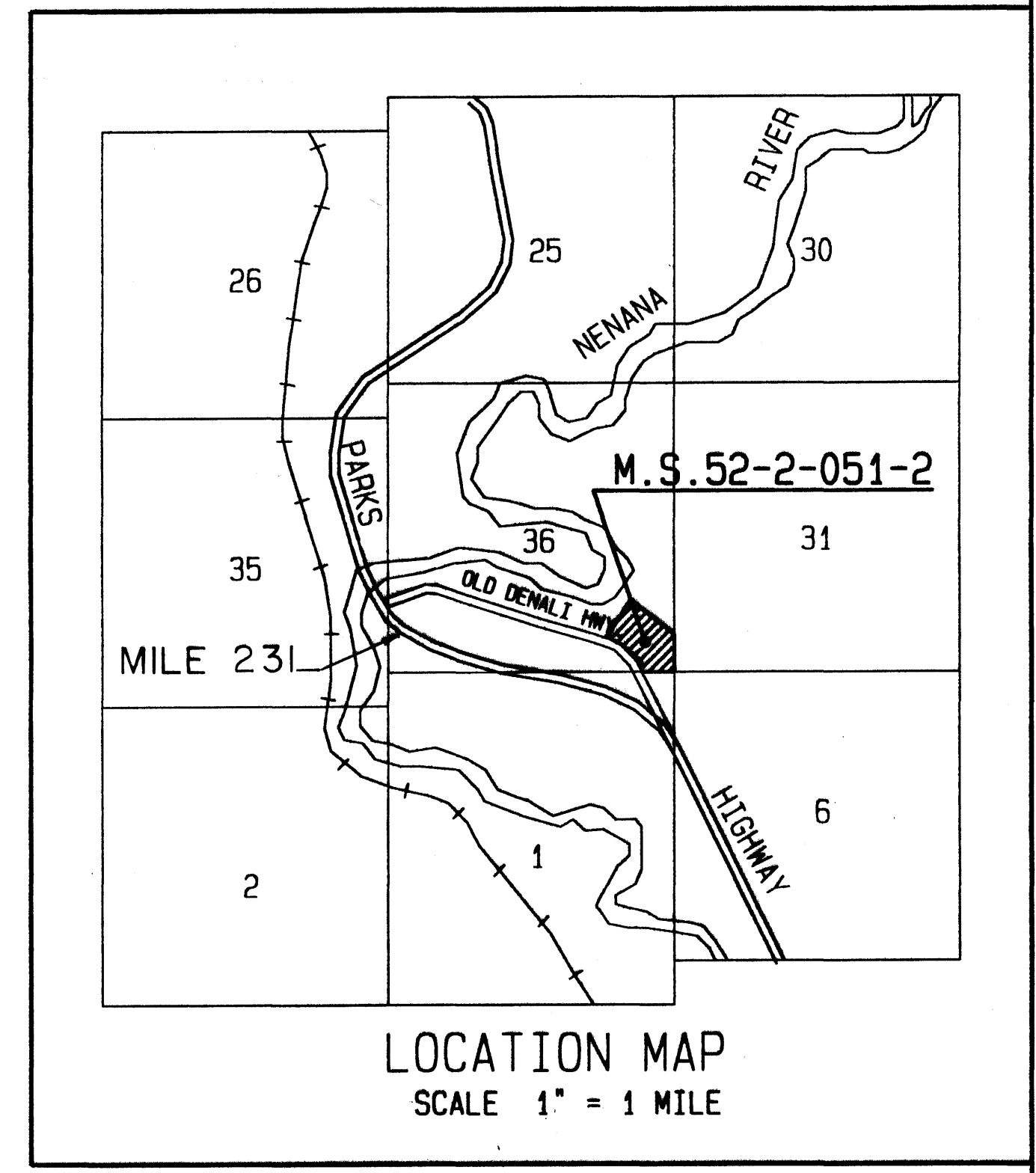
M.S. 052-2-047-2A
STATE OWNED



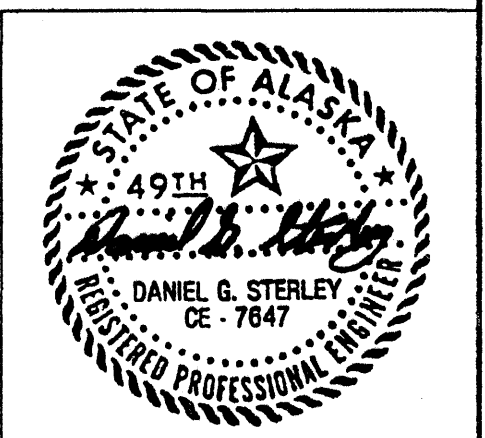
M.S. 52-2-068-2
AHTNA, INC.
STATE MATERIAL RIGHTS
RIPRAP SOURCE

- NOTES:
1. PIT BOUNDARIES SHALL BE SURVEYED PRIOR TO USE.
 2. ACCESS SHALL BE WITHIN D.O.T./P.F. ROW OR AETNA APPROVED EASEMENT.
 3. MATERIAL SOURCES AHTNA OWNED. LIMITED USE FOR MATERIAL EXTRACTION ONLY.
 4. MS 052-2-047-2A, ~~MS 052-2-064-2~~, MS 052-2-051-2 ARE STATE OWNED MATERIAL SITES.

NOTE: DELETED BY ADDENDUM NO. 1



NOTE: 1. THE SHADED AREA OF THE ABOVE PITS IS PRIVATELY OWNED. USE OF MATERIAL FROM THIS AREA IS SUBJECT TO ROYALTY PAYMENTS TO AHTNA INC./BLM BY THE USER.
2. PIT ACCESS APPROACH TO BE CONSTRUCTED UNDER ITEM 639 (1) AT 516" LT.



As-Built