

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND
 PUBLIC FACILITIES
 SOUTHEASTERN REGION
 DESIGN AND CONSTRUCTION DIVISION

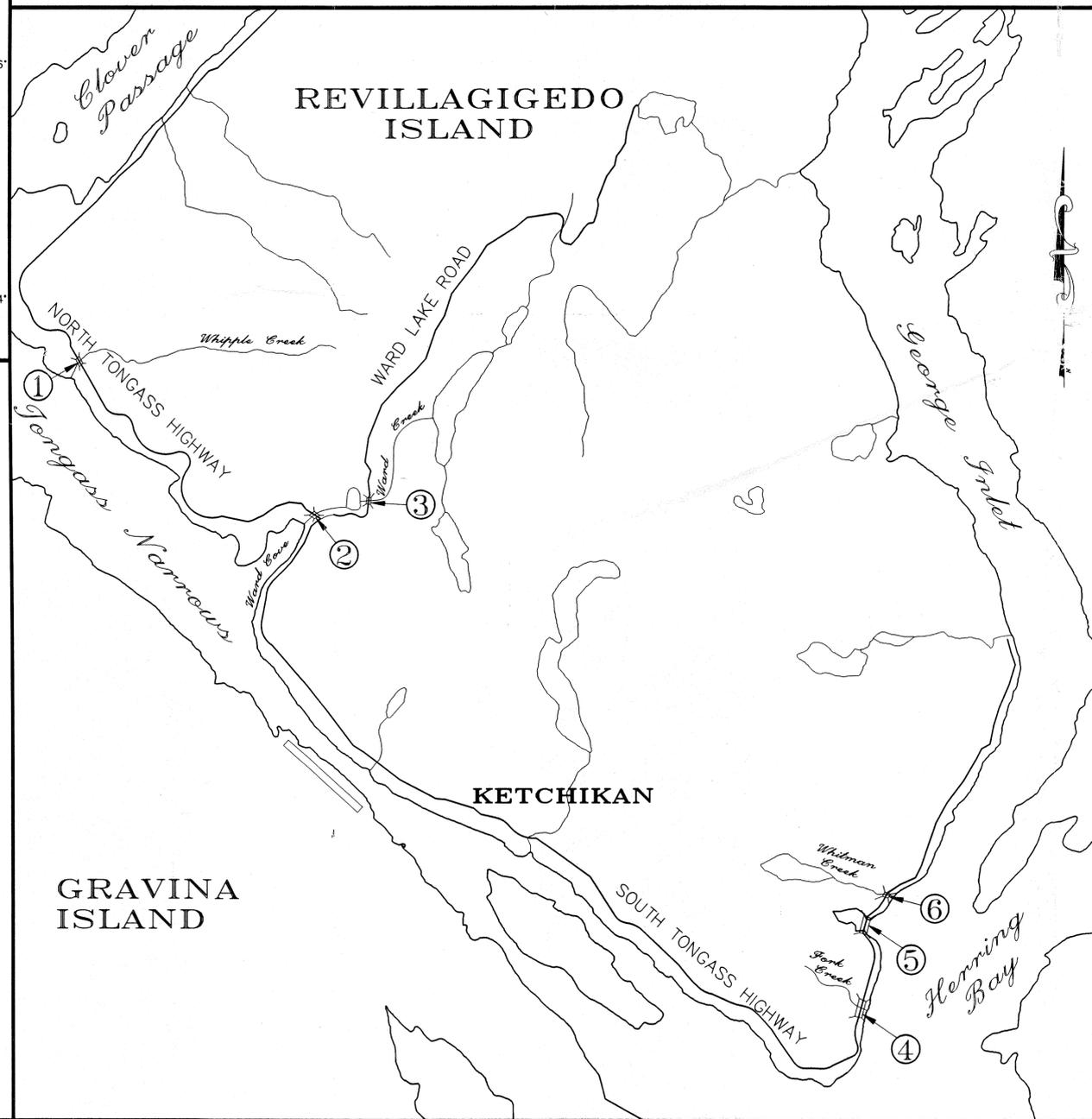
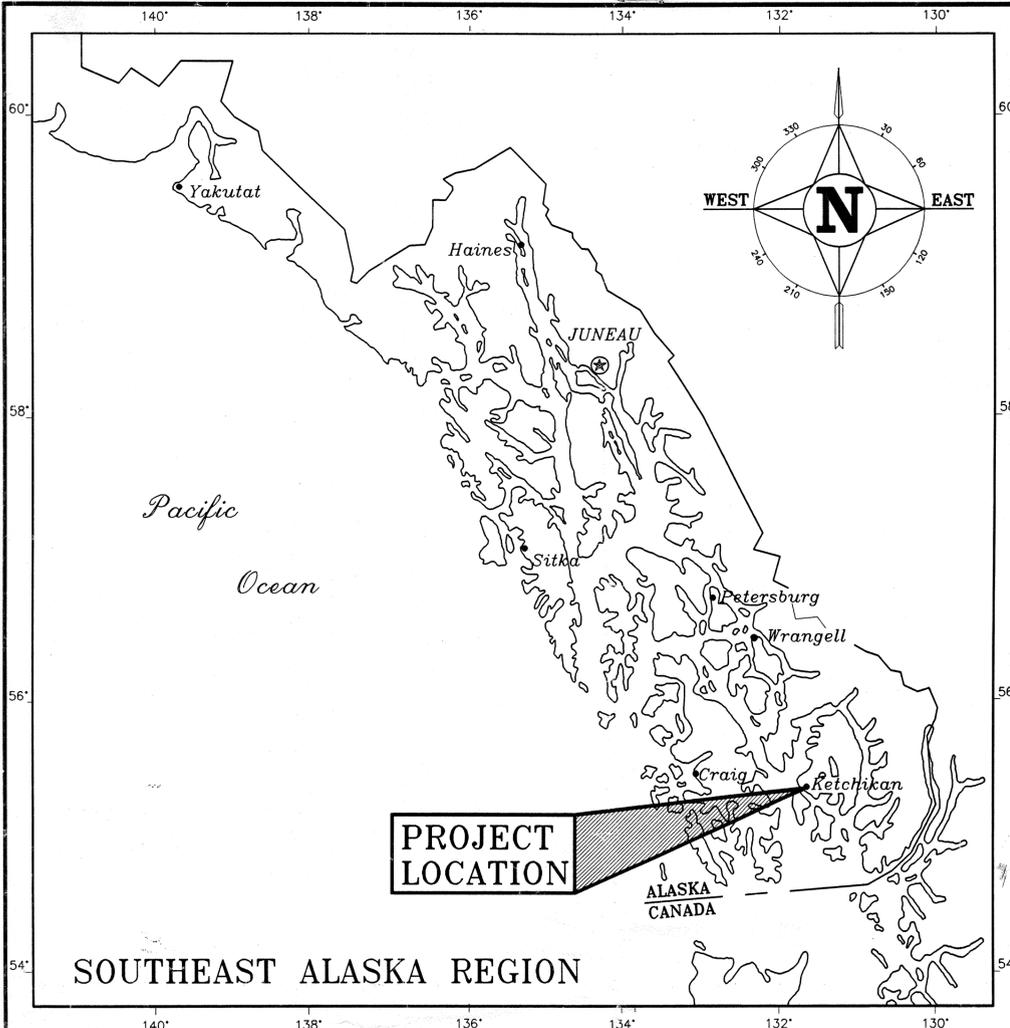
KETCHIKAN

BRIDGE RAIL AND TRANSITIONS UPGRADE

STP-HROG-000S (130) 71179

INDEX OF SHEETS

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The following Standard Drawings apply to this project:

A-1, C-02.01, D-01.01, D-04.10, D-05.10,
 G-04.03S, G-04.04W, G-09.01S, G-09.01W, G-14.04S,
 G-14.04W, G-15.00, G-18.00S, G-18.00W, G-24.05S,
 G-24.05W, G-29.01S, G-29.01W, S-00.00, S-05.00, S-20.00,
 S-30.01

As-Built Plans Pages 1-6, 13 & 14

1992

Contractor: South Coast Inc.

Project Engineer: Allen Shepard

BRIDGE KEY	BRIDGE #	SHEET NO.
① WHIPPLE CREEK	1153	4
② WARD CREEK	747	4
③ WARD CREEK	1051	5
④ FORKS CREEK	863	5
⑤ HERRING COVE	253	6
⑥ WHITMAN CREEK	1078	6

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND
 PUBLIC FACILITIES
 SOUTHEASTERN REGION DESIGN SECTION

APPROVED
Gary P. McCallon Date 9/9/92
 S.E. Region Engineering Manager

APPROVED
Allen Shepard Date 9-9-92
 Director, S.E. Region Design & Construction

PROJECT NUMBER: 71179	ENGINEER'S SEAL
DATE: 9/9/92	
SHEET 1 OF 14	

ESTIMATE OF QUANTITIES

BRIDGE NUMBERS

ITEM NO.	PAY ITEM	UNIT	WHIPPLE CREEK #1153	WARD CREEK #747	WARD CREEK #1051	FORKS CREEK #863	HERRING COVE #253	WHITMAN CREEK #1078	TOTAL QUANTITIES
120 (1)	DBE ADJUSTMENT	CONT. SUM							ALL REQ'D
201 (3B)	CLEARING & GRUBBING	LS							ALL REQ'D
203 (6)	BORROW TYPE "A"	TON	54	99	81	180	119	153	686 219.17
203 (11) Co #1	Borrow Type "A"	TRK							15
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON	20	60	290	50	80	80	550 413.93
303 (1)	RECONDITIONING	STATION			1.5				1.5
507 (1)	METAL BRIDGE RAILING	LF		380		51	232	312	975 980
603 (17-18)	18 INCH PIPE	LF				35	165	600.5	35
606 (1)	W-BEAM GUARDRAIL	LF	225 231.5	187.5 189	100	175 170.23	168.75 165	498.75 600.5	1,354.75 1,456.23
606 (2)	THRIE BEAM GUARDRAIL	LF	75	75	75	75	75	75	450
606 (4)	REMOVAL & RECONSTRUCTION OF GUARDRAIL	LF				75	25		100 112.5
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	112.5	181.25	137.5	182.5	210	437.50	1,261 1,516.35
606 (6)	END ANCHORAGES	EACH	1	1	2	1	2	2	9 10
606 (7)	ROCK ANCHOR TERMINAL	EACH		1		2		2	5
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH	1	2	2	3	2	4	14
606 (13)	BRIDGE RAIL RETROFIT	LF	412.5						412.5
606 (14)	BRIDGE RAILPOST RETROFIT	EACH			32				32
606 (19)	Thrie Beam Bridge Rail	LF	412.5						412.5
615 (1)	STANDARD SIGN	SF	20'	16'	16'		20'	20'	92
640 (1)	MOBILIZATION & DEMOBILIZATION	LS							ALL REQ'D
641 (1)	TEMPORARY EROSION & POLLUTION CONTROL	CS							ALL REQ'D
642 (1)	CONSTRUCTION SURVEYING	LS							ALL REQ'D
643 (2)	TRAFFIC MAINTENANCE	LS							ALL REQ'D
643 (4)	CONSTRUCTION SIGN	EA. PER DAY							210 424
643 (5)	TYPE II BARRICADE	EA. PER DAY							25 0
643 (6)	DRUMS	EA. PER DAY							75 264
643 (7)	TRAFFIC CONE	EA. PER DAY							1300 1973
643 (15)	FLAGGING	HR							500 481

GENERAL NOTES

1. ALL GUARDRAIL LOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO MINOR REVISION.
2. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE TO AN APPROVED WASTE SITE.
3. ALL USEABLE HARDWARE DESIGNATED BY THE ENGINEER WILL BE SALVAGED AND BECOME THE PROPERTY OF THE DOT/PF STATE MAINTENANCE AND SHALL BE DELIVERED TO THE STATE MAINTENANCE YARD.

ABBREVIATIONS:

- (WP) = EXISTING WOOD GUARDRAIL POST
- (MP) = EXISTING METAL GUARDRAIL POST
- ☆ = EXISTING SIGNS TO BE REMOVED
- (W) = REMOVAL & DISPOSAL OF GUARDRAIL
- (X) = NEW W-BEAM GUARDRAIL
- (XF) = 37.5' PARABOLA FLARE
- (Y) = REMOVAL & RECONSTRUCTION OF GUARDRAIL
- (Z) = NEW THRIE BEAM GUARDRAIL
- EOP = EDGE OF PAVEMENT
- ▲ = BRIDGE RAIL LENGTH
- (1-4) = GENERAL WORK ZONES

5. HOLES AND DEPRESSIONS RESULTING FROM THE REMOVAL OF EXISTING GUARDRAIL AND TERMINAL END SECTIONS SHALL BE BACKFILLED WITH BORROW, TYPE "A".
6. HORIZONTAL CONTROL IS BASED ON THE CENTER OF THE INDIVIDUAL EXISTING BRIDGE ABUTMENTS.
7. THE CONTRACTOR WILL BE REQUIRED TO FIELD RETROFIT OR NEST APPROX. 6.25 LF OF EXISTING W-BEAM GUARDRAIL AT THE THRIE BEAM CONNECTIONS AT THE FOLLOWING LOCATIONS:

WORK_ZONE	
WHIPPLE CREEK #1153	① ② ③
WARD CREEK #747	③
WARD CREEK #1051	③ ④
FORKS CREEK #863	② ④

FIELD RETROFITING SHALL REQUIRE ALL SURFACES OF THE GUARDRAIL THAT ARE FIELD CUT, DRILLED, OR WELDED BE GALVANIZED. PRIOR TO GALVANIZING ALL EXPOSED SURFACES SHALL BE CLEAN OF DIRT, SLAG, AND METAL SHAVINGS.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

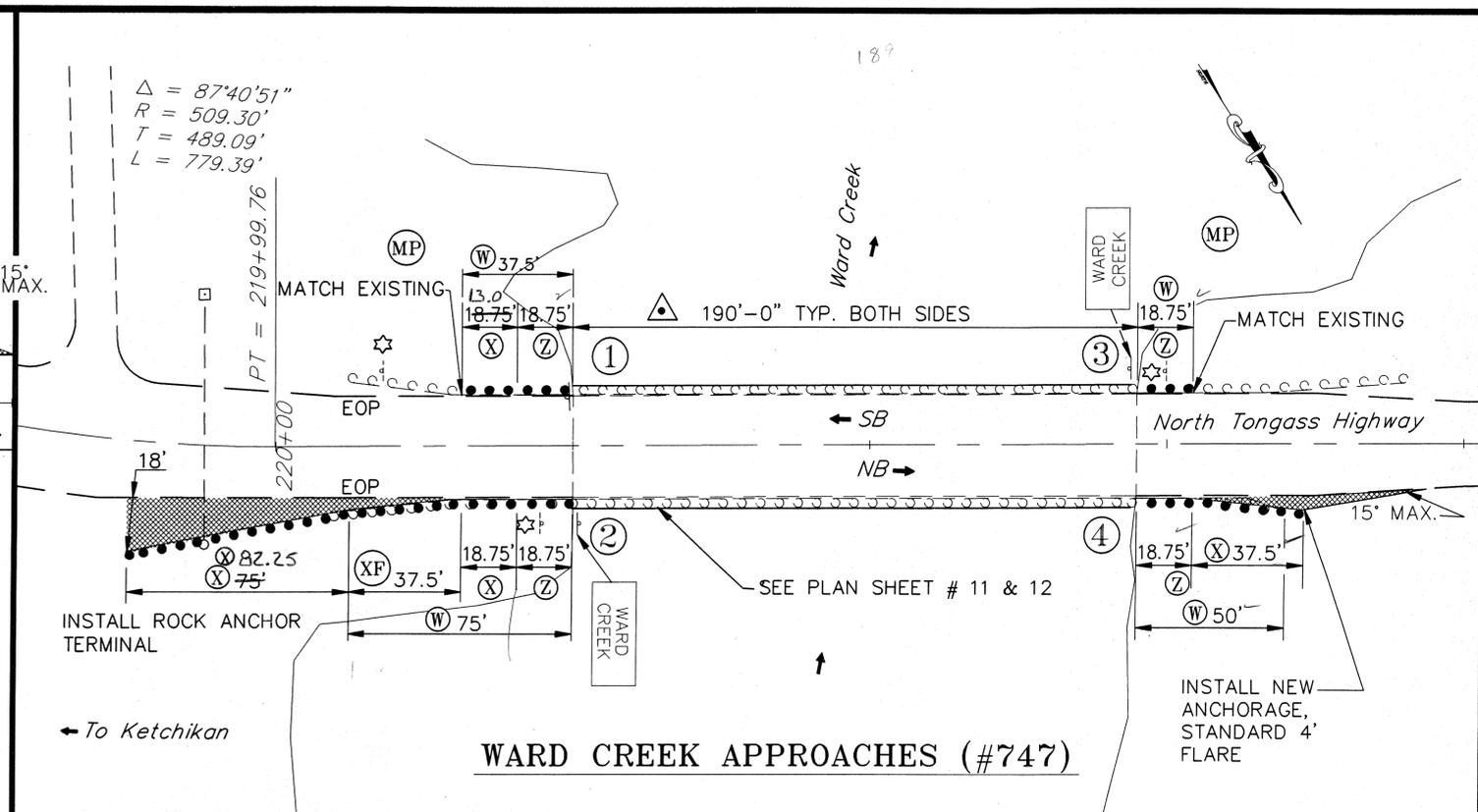
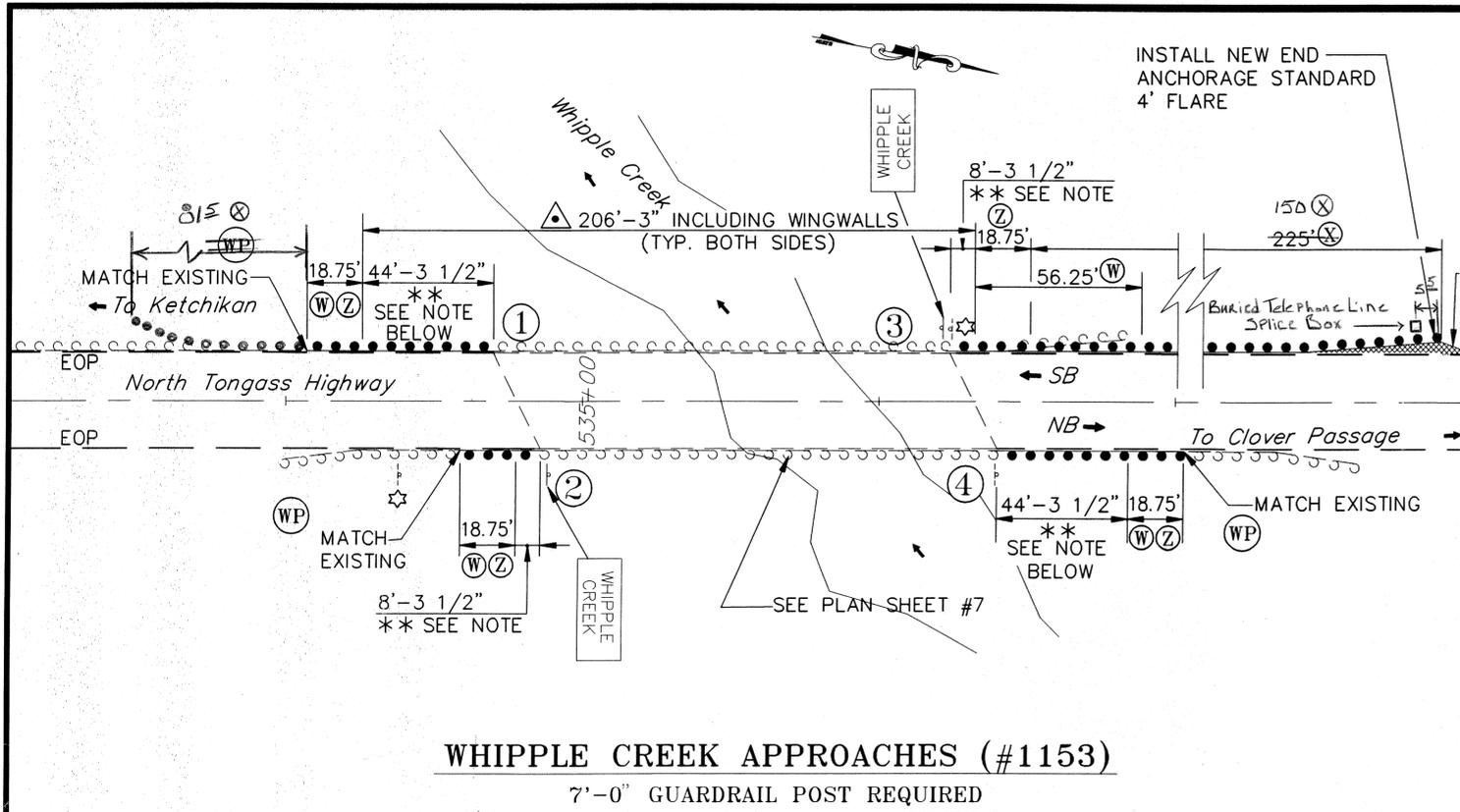
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN
KTN-BRIDGE RAIL & TRANSITIONS UPGRADE
ESTIMATE OF QUANTITIES
STP-HROG-000S (130) 71179

DESIGNED BY: P. JONES	PROJECT NO. 71179
DRAWN BY: AutoCAD/B. ADAMS	DATE: 9/9/92
CHECKED BY: W.J. HOLBROOK	SHEET 3 OF 14





#1153 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	TOTAL
203 (6)	BORROW TYPE "A"	TON			54		54
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON			20		20
606 (1)	W-BEAM GUARDRAIL	LF	81.5		150		231.5
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	18.75'	18.75'	75'
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	18.75'	18.75'	56.25'	18.75'	112.5'
606 (6)	END ANCHORAGE	EACH			1		1
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH			1		1
606 (13)	BRIDGE RAIL RETROFIT	LF					412.5'
615 (1)	STANDARD SIGN	SF		10	10		20'

* * END WINGWALL THRIE BEAM TRANSITION RAIL. SEE BRIDGE RETROFIT PLAN SHEET 7.

- LEGEND**
- (W) REMOVAL & DISPOSAL OF GUARDRAIL
 - (X) NEW W-BEAM GUARDRAIL
 - (XF) 37.5' PARABOLA FLARE
 - (Y) REMOVE & RECONSTRUCT GUARDRAIL
 - (Z) NEW THRIE BEAM GUARDRAIL
 - (WP) EXISTING WOOD POST
 - (MP) EXISTING METAL POST
 - EOP EDGE OF PAVEMENT
 - ☆ EXISTING SIGN TO BE REMOVED
 - △ BRIDGE RAIL LENGTH
 - (1-4) GENERAL WORK ZONES
 - CRUSHED AGGREGATE BASE COURSE

#747 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	TOTAL
203 (6)	BORROW TYPE "A"	TON		45		54	99
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON		20		40	60
507 (1)	METAL BRIDGE RAILING	LF					380'
606 (1)	W-BEAM GUARDRAIL	LF	13	138.5		187.5	339
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	18.75'	18.75'	75'
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	37.5'	75.00'	18.75'	50'	181.25'
606 (6)	END ANCHORAGES	EACH				1	1
606 (7)	ROCK ANCHOR TERMINAL	EACH		*1			1
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH		1		1	2
615 (1)	STANDARD SIGN	SF		8	8		16'

* ROCK ANCHOR TERMINAL SEE DETAIL, SHEET 13.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

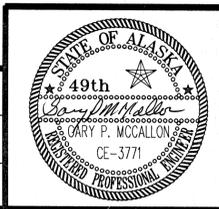
RECORD OF REVISIONS

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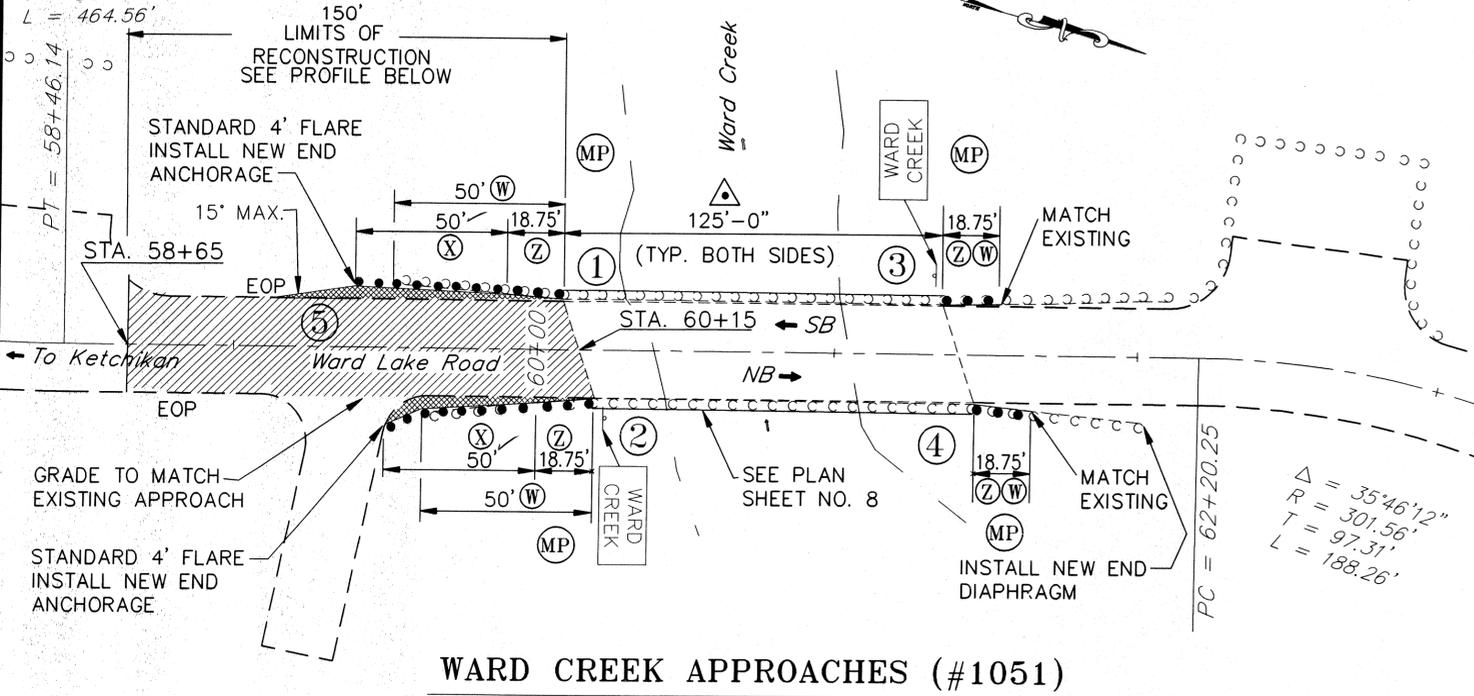
STATE OF ALASKA
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KTN-BRIDGE RAIL & TRANSITIONS UPGRADE
BRIDGE & APPROACH LAYOUT PLAN
WHIPPLE CREEK (#1153) & WARD CREEK (#747)
STP-HROG-000S (130) 71179

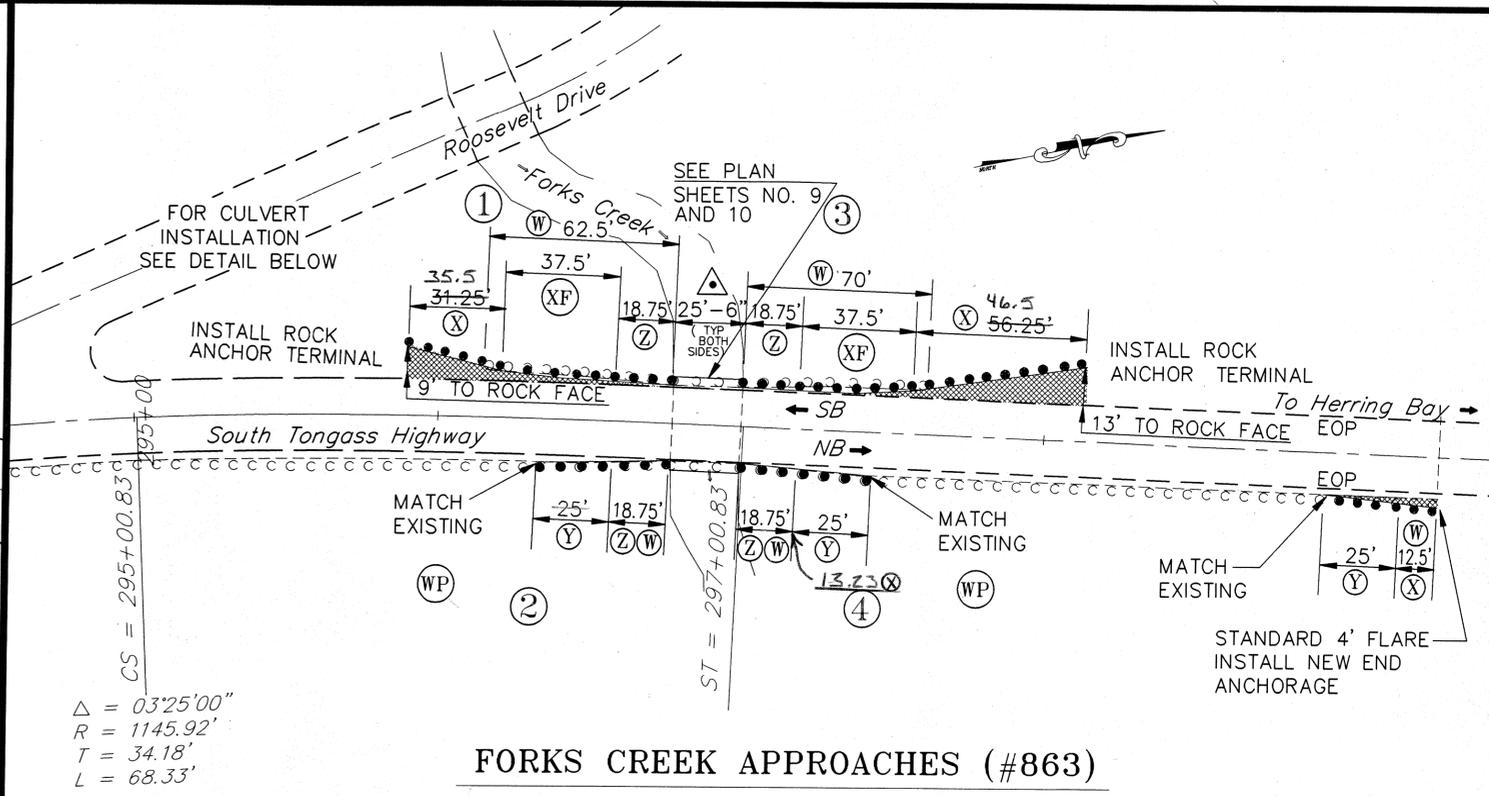
ALASKA DESIGNED BY: P. JONES PROJECT NO. 71179
DRAWN BY: AutoCAD/B. ADAMS DATE: 9/9/92
CHECKED BY: W.J. HOLBROOK SHEET 4 OF 14



$\Delta = 53^{\circ}25'27''$
 $R = 498.22'$
 $T = 250.71'$
 $L = 464.56'$



WARD CREEK APPROACHES (#1051)



FORKS CREEK APPROACHES (#863)

7'-0" GUARDRAIL POST REQUIRED

#1051 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	⑤	TOTAL
203 (6)	BORROW TYPE "A"	TON	54	27				81
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON	40	20			230	290
303 (1)	RECONDITIONING	STATION					1.5	1.5
606 (1)	W-BEAM GUARDRAIL	LF	50'	50'				100'
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	18.75'	18.75'		75'
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	50'	50'	18.75'	18.75'		137.5'
606 (6)	END ANCHORAGES	EACH	1	1				2
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH	1	1				2
606 (14)	BRIDGE RAIL POST RETROFIT	EACH						32
615 (1)	STANDARD SIGN	SF		8	8			16'

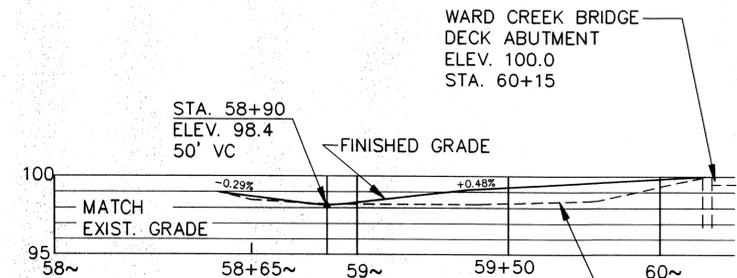
LEGEND

- (W) REMOVAL & DISPOSAL OF GUARDRAIL
- (X) NEW W-BEAM GUARDRAIL
- (Y) REMOVEAL & RECONSTRUCTION OF GUARDRAIL
- (XF) 37.5' PARABOLA FLARE
- (Z) NEW THRIE BEAM GUARDRAIL
- (WP) EXISTING WOOD POST
- (MP) EXISTING METAL POST
- [Hatched] RECONDITIONING
- EOP EDGE OF PAVEMENT
- (△) BRIDGE RAIL LENGTH
- (1-4) GENERAL WORK ZONES
- [Dotted] CRUSHED AGGREGATE BASE COURSE

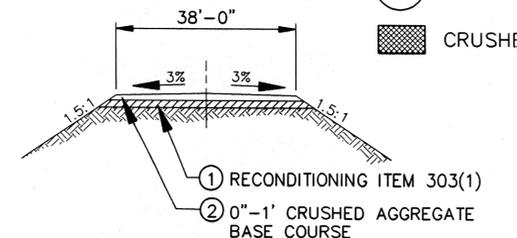
#863 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	TOTAL
203 (6)	BORROW TYPE "A"	TON	90				180
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON	20		20	10	50
507 (1)	METAL BRIDGE RAILING	LF					51'
603 (17-18)	18 INCH PIPE	LF	35.73		24.0	13.23	35'
606 (1)	W-BEAM GUARDRAIL	LF	68.75		93.75	12.5	175'
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	18.75'	18.75'	75'
606 (4)	REMOVAL & RECONSTRUCTION OF GUARDRAIL	LF		25'		50'	75'
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	62.5'	18.75'	70'	31.25'	182.50'
606 (6)	END ANCHORAGES	EACH				1	1
606 (7)	ROCK ANCHOR TERMINAL	EACH	*1		*1		2
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH	1			1	3

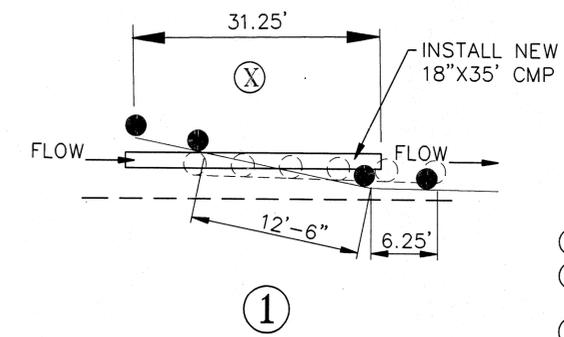
* ROCK ANCHOR TERMINAL, SEE DETAIL SHEET 13



**PROFILE-WARD LAKE ROAD
STATION 58+65 TO 60+15**



**WARD LAKE ROAD TYPICAL SECTION
STATION 58+65 TO 60+15**



SOUTH BOUND DEPARTURE

- NOTES:**
- ① DITCH TO DRAIN
 - ② 18 INCH PIPE SHALL REQUIRE A MIN. .05% SLOPE.
 - ③ SEE DITCH CROSSING DETAIL ON PLAN SHEET # 13.

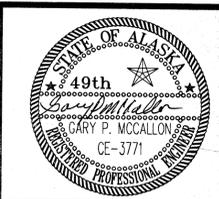
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STATE OF ALASKA
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN
ALASKA
KTN-BRIDGE RAIL & TRANSITIONS UPGRADE
BRIDGE & APPROACH LAYOUT PLAN
WARD CREEK (#1051) & FORKS CREEK (#863)
STP-HROG-000S (130) 71179

DESIGNED BY:	P. JONES	PROJECT NO.	71179
DRAWN BY:	AutoCAD/B. ADAMS	DATE:	9/9/92
CHECKED BY:	W.J. HOLBROOK	SHEET	5 OF 14



#253 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	TOTAL
203 (6)	BORROW TYPE "A"	TON		65	54		119
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON		40	40		80
507 (1)	METAL BRIDGE RAILING	LF	26.0	13.0		26.0	232'
606 (1)	W-BEAM GUARDRAIL	LF	18.75'	34.25'		18.75'	168.75'
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	100'	18.75'	75'
606 (4)	REMOVAL & RECONSTRUCTION OF GUARDRAIL	LF		25'			25'
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	37.5'	50'	85'	37.5'	210'
606 (6)	END ANCHORAGES	EACH		1	1		2
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH		1	1		2
615 (1)	STANDARD SIGN	SF		10	10		20'

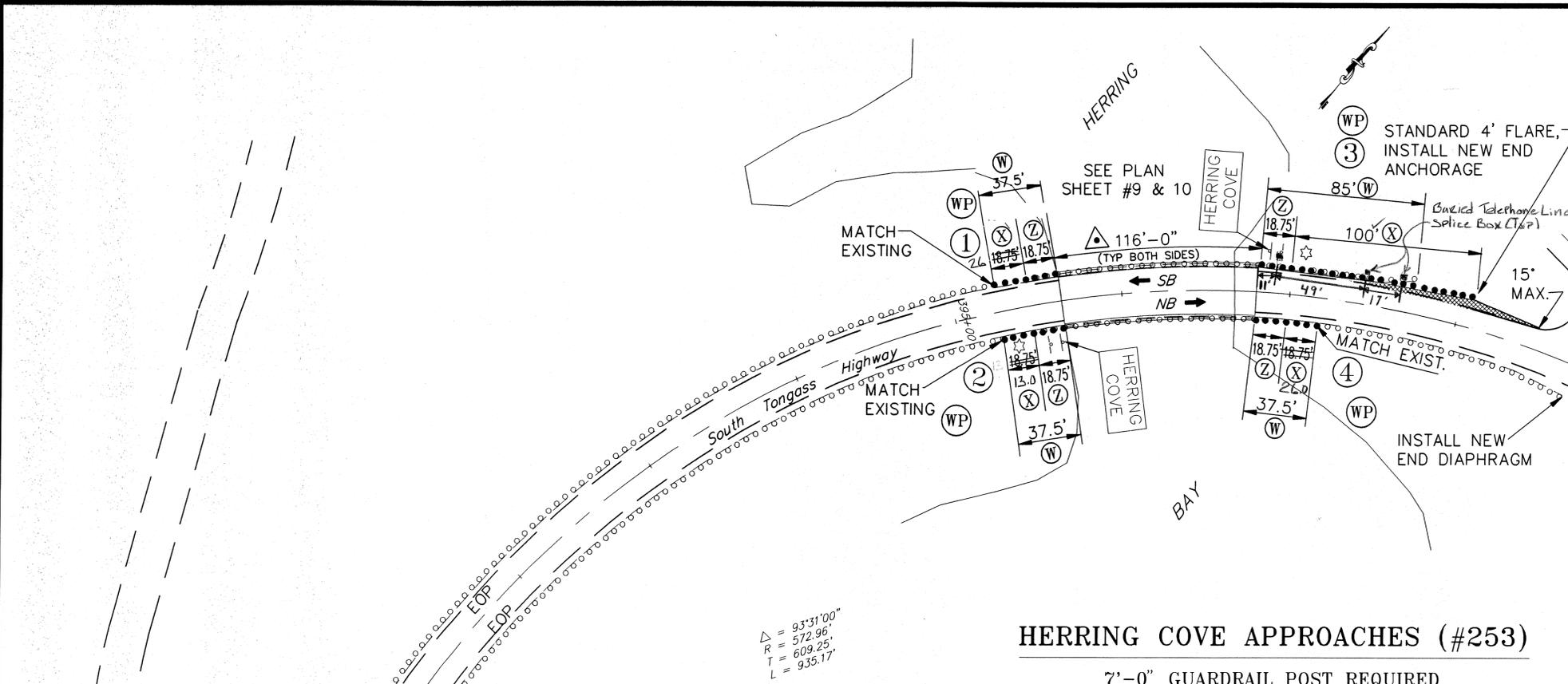
#1078 ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	①	②	③	④	TOTAL
203 (6)	BORROW TYPE "A"	TON	27	27	45	54	153
301 (1)	CRUSHED AGGREGATE BASE COURSE	TON	10	10	10	20	50
507 (1)	METAL BRIDGE RAILING	LF					312'
606 (1)	W-BEAM GUARDRAIL	LF	83.0	50'	80.5	387.0	600.5'
606 (2)	THRIE BEAM GUARDRAIL	LF	18.75'	18.75'	18.75'	18.75'	75'
606 (4)	REMOVAL & RECONSTRUCTION OF GUARDRAIL	LF					
606 (5)	REMOVAL & DISPOSAL OF GUARDRAIL	LF	18.75'	68.75'	68.75'	281.25'	437.50'
606 (6)	END ANCHORAGES	EACH		1		1	2
606 (7)	ROCK ANCHOR TERMINAL	EACH	*1		*1		2
606 (10)	REMOVAL & DISPOSAL OF TERMINAL SECTION	EACH	1	1	1	1	4
615 (1)	STANDARD SIGN	SF		10	10		20'

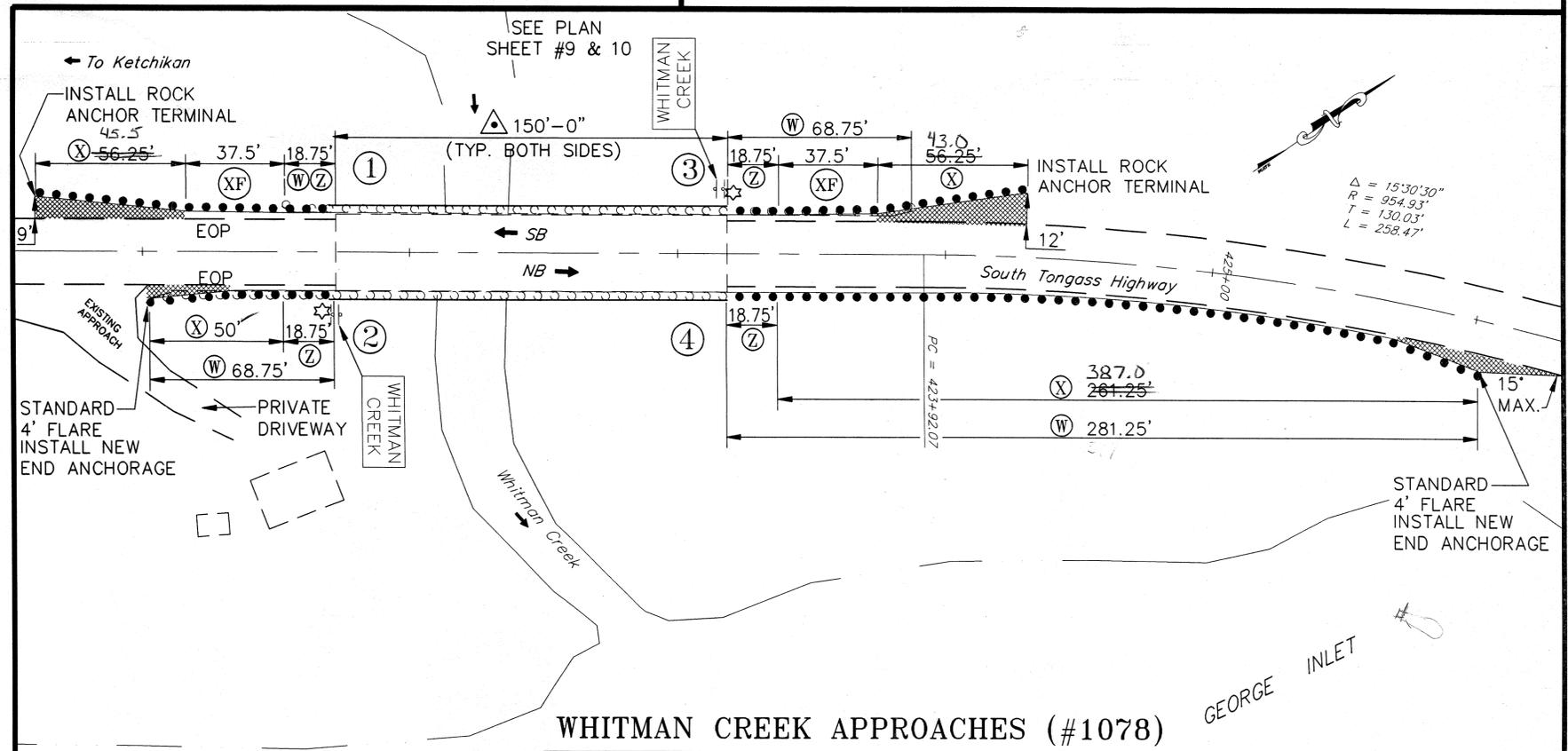
* ROCK ANCHOR TERMINAL, SEE DETAIL SHEET 13

HERRING COVE APPROACHES (#253)

7'-0" GUARDRAIL POST REQUIRED



$\Delta = 93^{\circ}31'00''$
 $R = 572.96'$
 $T = 609.25'$
 $L = 935.17'$



WHITMAN CREEK APPROACHES (#1078)

- LEGEND**
- (W) REMOVAL & DISPOSAL OF GUARDRAIL
 - (X) NEW W-BEAM GUARDRAIL
 - (Y) REMOVE & RECONSTRUCT GUARDRAIL
 - (XF) 37.5' PARABOLA FLARE
 - (Z) NEW THRIE BEAM GUARDRAIL
 - (WP) EXISTING WOOD POST
 - (MP) EXISTING METAL POST
 - EOP EDGE OF PAVEMENT
 - ☆ EXISTING SIGN TO BE REMOVED
 - ▲ BRIDGE RAIL LENGTH
 - (1-4) GENERAL WORK ZONES
 - CRUSHED AGGREGATE BASE COURSE

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

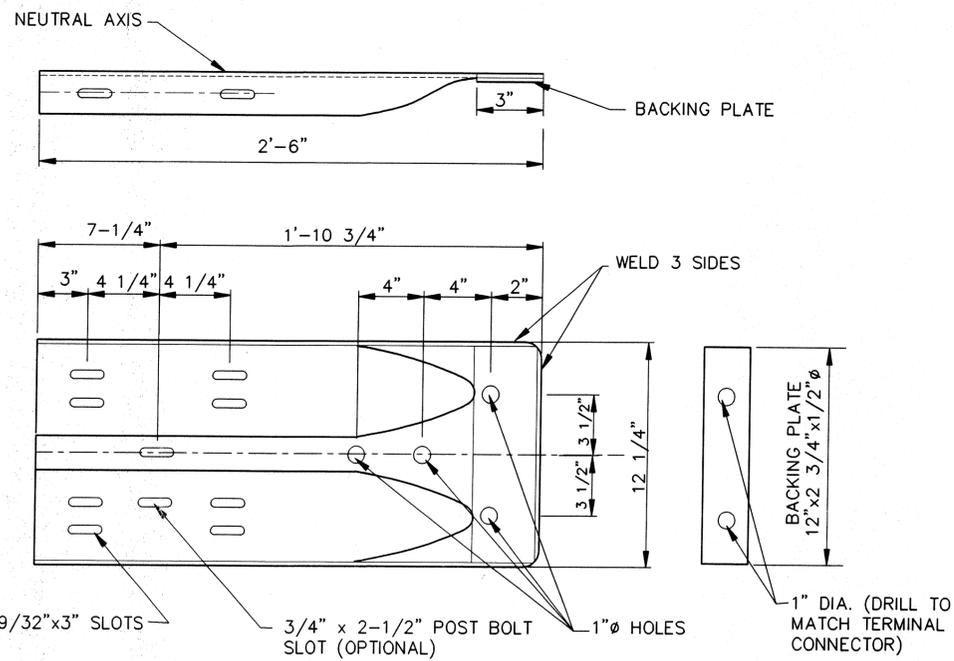
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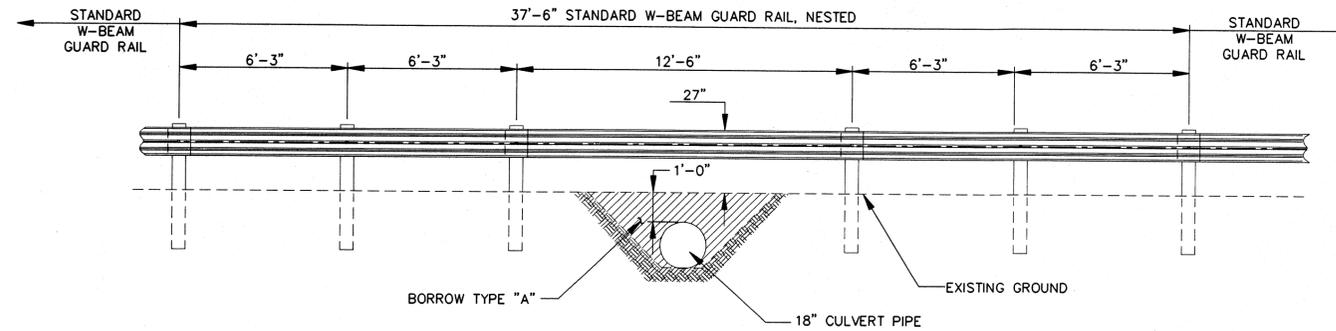
JUNEAU KTN-BRIDGE RAIL & TRANSITIONS UPGRADE
 BRIDGE & APPROACH LAYOUT PLAN
 HERRING COVE (#253) & WHITMAN CREEK (#1078)
 STP-HROG-000S (130) 71179

DESIGNED BY:	P. JONES	PROJECT NO.	71179
DRAWN BY:	AutoCAD/B. ADAMS	DATE:	9/9/92
CHECKED BY:	W.J. HOLBROOK	SHEET	6 OF 14

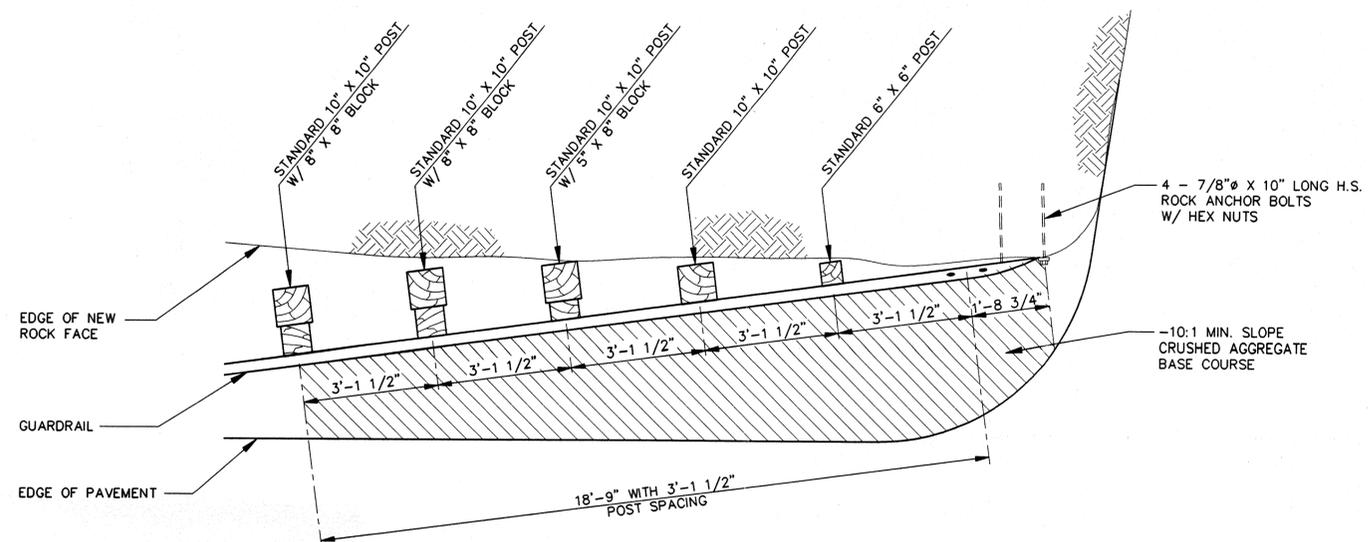




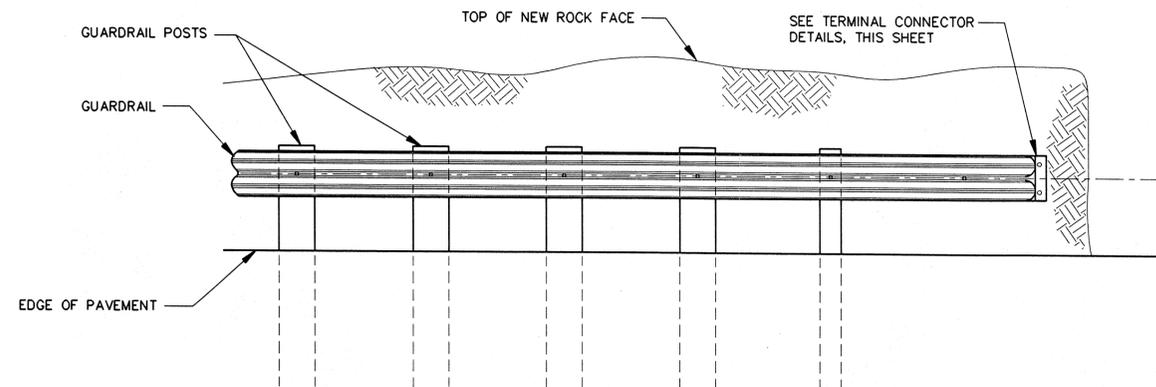
TERMINAL CONNECTOR DETAIL
SEE STANDARD DRAWING G-15.00



SKIPPED POST MODIFICATION DETAIL



PLAN



ELEVATION

ROCK ANCHOR DETAIL

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GUARDRAIL DETAILS
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ALASKA

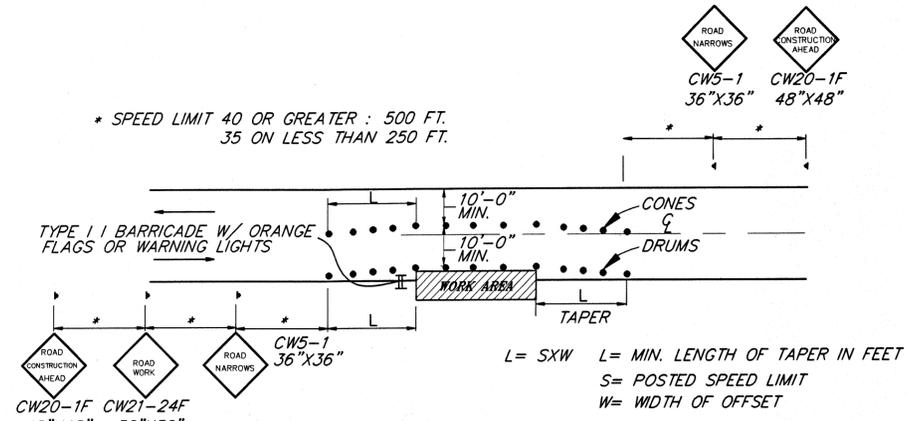
DESIGNED BY: P. JONES
DRAWN BY: AutoCAD/B. ADAMS
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PROJECT NO. 71179
DATE: 9/9/92
SHEET 13 OF 14



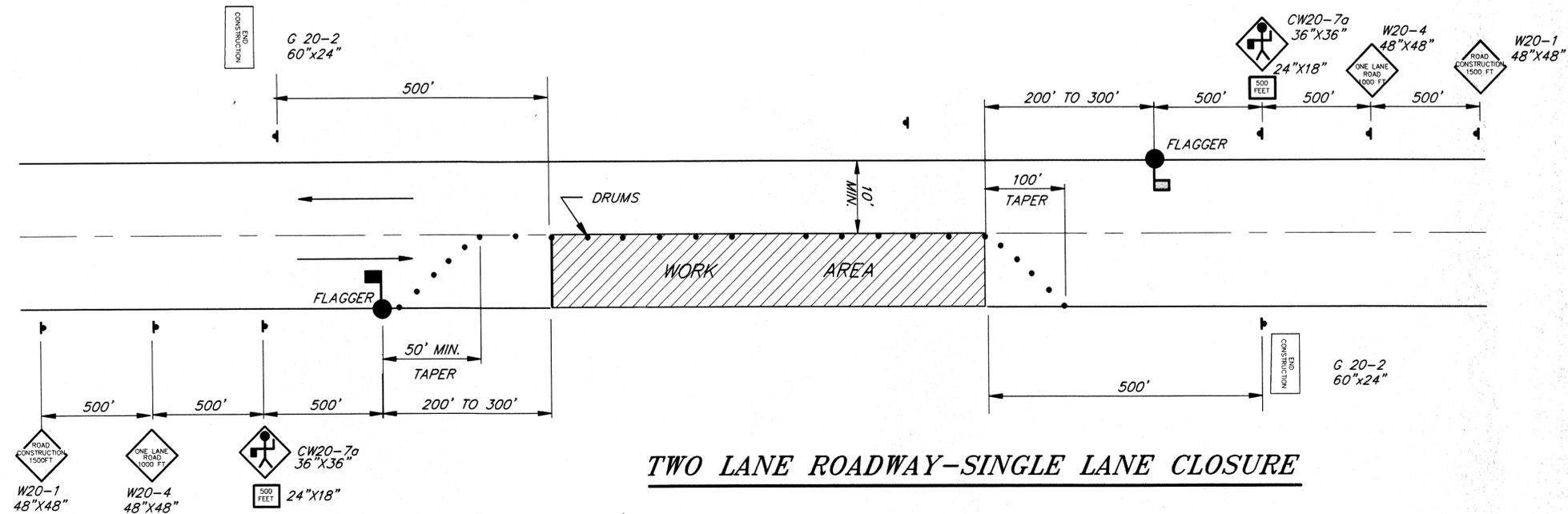
TRAFFIC CONTROL NOTES

1. A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES AT WORK AREAS.
2. TWO LANES SHALL BE MAINTAINED AT ALL TIMES AT WORK SITES DURING NON-WORKING HOURS.
3. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES SHALL BE EQUAL TO THE SPEED LIMIT IN FEET.
4. FLOOD LIGHTS SHALL BE PROVIDED FOR FLAGGER STATIONS DURING NIGHT OPERATIONS.
5. A SINGLE FLAGGER MAY BE APPROVED BY THE ENGINEER IF THE ENTIRE WORK AREA IS LESS THAN 50' LONG AND IS VISIBLE FROM BOTH DIRECTIONS.
6. TWO WAY TRAFFIC WILL BE MAINTAINED ON WARD CREEK BRIDGE ON NORTH TONGASS HIGHWAY FROM 7:00-9:00 A.M. AND FROM 4:00-6:00 P.M. ON WEEKDAYS.



ROADWAY ENCROACHMENT

NOTE: IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE DRUMS ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.



TWO LANE ROADWAY-SINGLE LANE CLOSURE

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN ALASKA
KTN-BRIDGE RAIL & TRANSITIONS UPGRADE
TRAFFIC CONTROL PLAN
STP-HROG-000S (130) 71179

DESIGNED BY:	R. PURVIS	PROJECT NO.	71179
DRAWN BY:	AutoCAD/B. ADAMS	DATE:	
CHECKED BY:	K. SMITH	SHEET 14 OF 14	

