State of Alaska

Department of Transportation and Public Facilities

Design & Engineering Services Division-Southeast Region

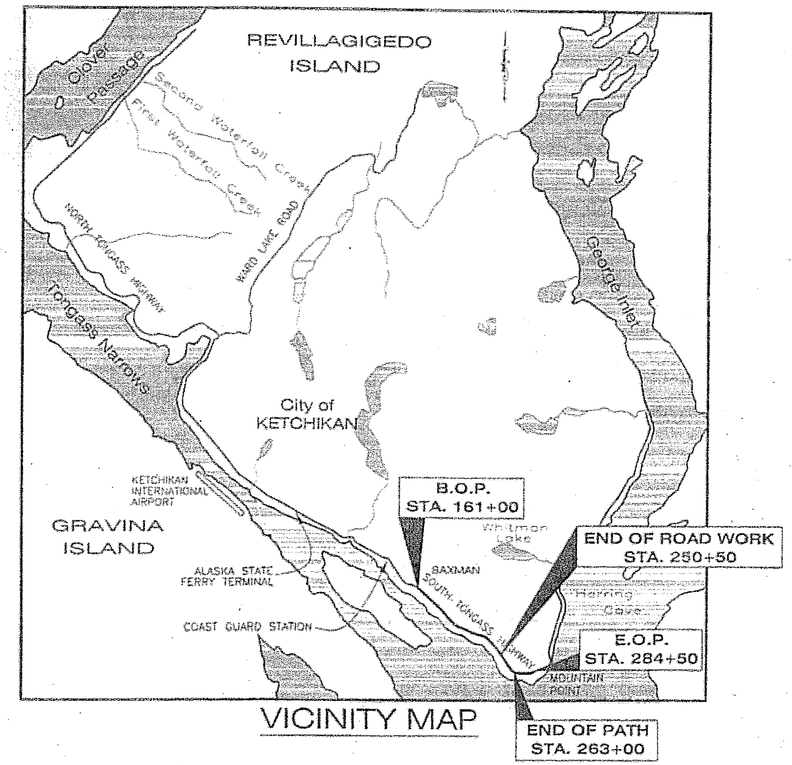
Ketchikan, Alaska

South Tongass Highway

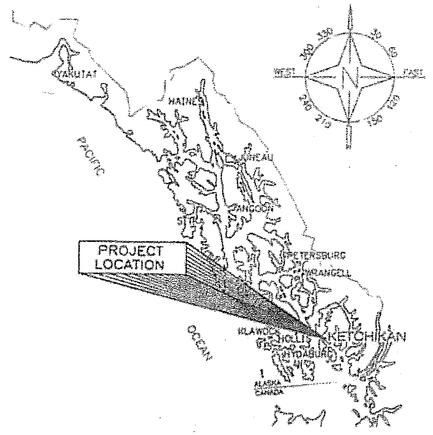
WIDENING & RECONSTRUCTION
MGS-STP-0902(20) ~ 71670

KGB-WATER & SEWER IMPROVEMENTS - RSA~68581

KGB-WATER & SEWER RELOCATION - RSA~69082



VICINITY MAP



AS-BUILT PLANS

CONTRACTOR: SECON, INC.
PROJECT ENG. A.K. SHEPARD
BEGIN CONST. AUGUST 2006
COMPLETE CONST. AUGUST 2008

DESIGN DESIGNATION

A.D.T. 2005	=	3,470
A.D.T. 2020	=	4,240
D.H.V. 2020	=	470
% T	=	6.2%
V	=	45 MPh
E.A.L.	=	550,000

PROJECT SUMMARY

LENGTH OF GRADING	=	2.3 miles
LENGTH OF PAVING	=	1.7 miles
WIDTH OF PAVED ROAD	=	32 feet
WIDTH OF PAVED PATH	=	8 feet
LENGTH OF PROJECT	=	2.3 miles

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1	D-06.10	G-04.07W	I-30.10	M-16.01	S-31.00
B-08.00	D-07.00	G-09.04W	I-81.00	S-00.10	T-05.10
C-03.10	D-25.00	G-20.10	L-03.10	S-01.00	T-06.00
C-04.12	D-30.01	G-25.00	L-23.01	S-05.01	T-21.02
D-01.02	E-00.00	G-25.20W	L-26.00	S-20.10	T-22.03
D-04.21	G-01.02	G-28.00	M-13.01	S-30.03	T-34.01

INDEX

SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2-A4	SURVEY CONTROL DATA
B1-B9	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1-D7	SUMMARIES
F1-F24	ROADWAY PLAN AND PROFILE
G1A-G9	PEDESTRIAN PATH PLAN & PROFILE
G10-G12	INTERSECTION PLAN & PROFILE
G13-G23	DRIVEWAY PLAN & PROFILE
H1-H14	FISH STREAM PIPE DETAILS
J1-J6	MISCELLANEOUS DETAILS
K1-K12	RETAINING WALL & FENCE DETAILS
L1-L5	BUGGE BEACH TURNOUT DETAILS
M1-M3	GRADING PLANS & DETAILS
P1-P5	SIGNING, LIGHTING, & STRIPING PLAN
Q1-Q3	TRAFFIC RECORDER DETAILS
S1-S3	TRAFFIC CONTROL PLAN
T1-T7	EROSION & POLLUTION CONTROL PLAN
U1-U20	ELECTRICAL RELOCATION PLAN
W1-W13	KGB-WATER & SEWER PLAN
X1-X17	RIGHT OF WAY PLAN

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Fri, 05/May/06 10:14AM

PLOT: PSPACE OR MSPACE: 1000mm=1m(F)

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION

STATE OF ALASKA — Chad V. Howard — CE-10835 — REGISTERED PROFESSIONAL ENGINEER

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

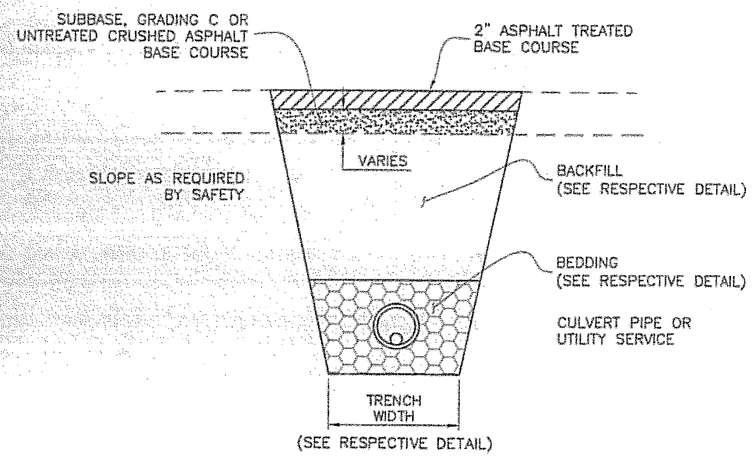
Proj. Eng. AK SHEPARD Date 3-09

APPROVED: 5-5-06
REGIONAL PRE-CONSTRUCTION ENGINEER — DATE
PATRICK J. KEMP, P.E.

APPROVED: 5/24/06
DIRECTOR, SOUTHEAST REGION — DATE
MALCOLM A. MENZIES, P.E.

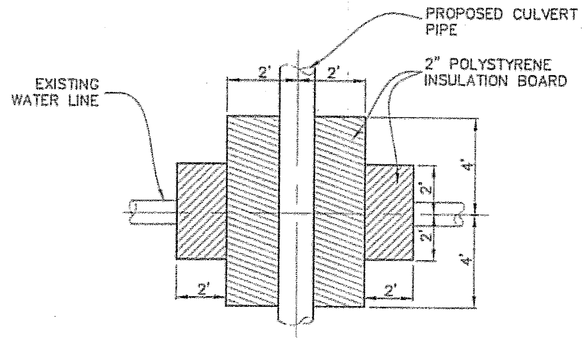
CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:
CONSTRUCTION PROJECT MANAGER — DATE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-0902(20)~71670	2006	A1	179

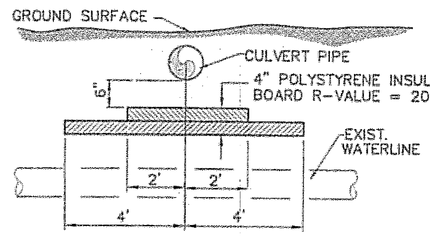


TEMPORARY PAVEMENT PATCH DETAIL

N.T.S.



PLAN



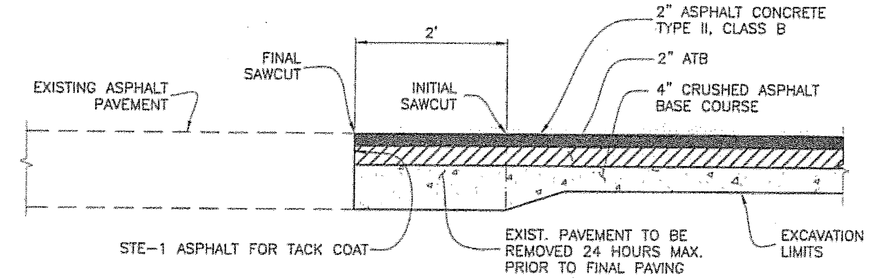
SECTION

RIGID INSULATION

N.T.S.

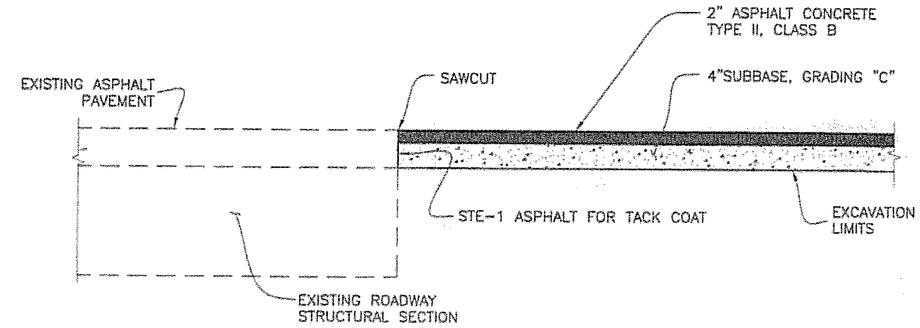
NOTES:

1. INSTALL INSULATION AS SHOWN.
2. WRAP AROUND INSULATION WITH R-VALUE EQUAL TO 20 MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



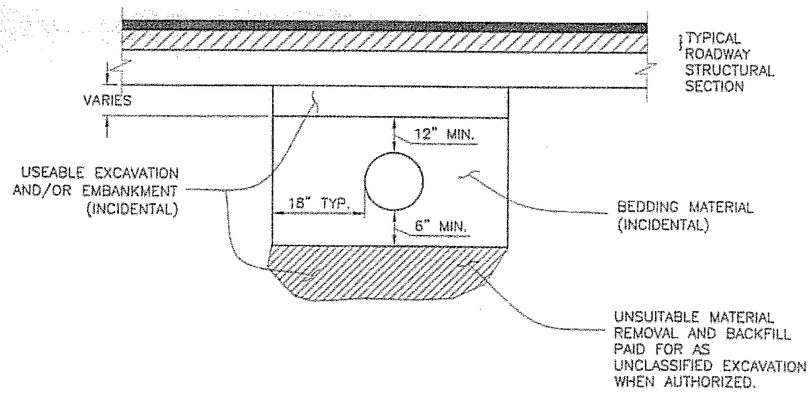
"O" LINE PAVEMENT MATCH JOINT DETAIL

B.O.P. & E.O.P.



INTERSECTION PAVEMENT MATCH JOINT DETAIL

"N1", "N3", & "N4" LINES



TYPICAL PIPE TRENCHING & BEDDING DETAIL

N.T.S.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ASCHEPMED Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS DETAILS

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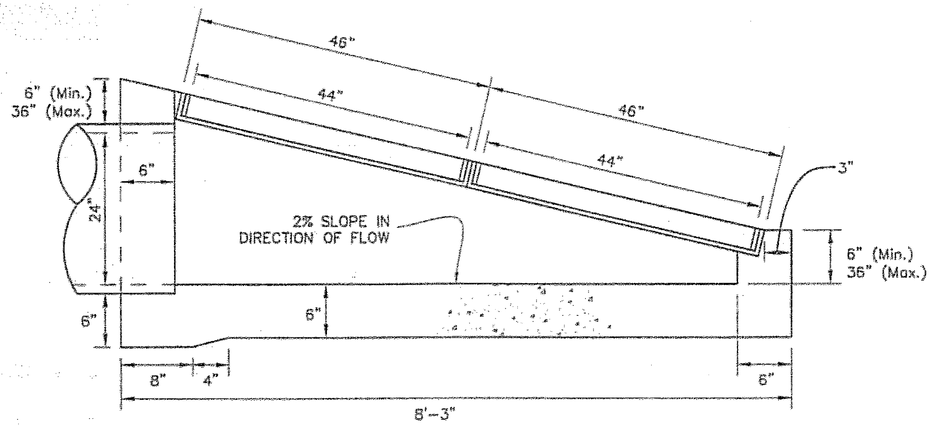
REVISIONS NO.	DATE	DESCRIPTION

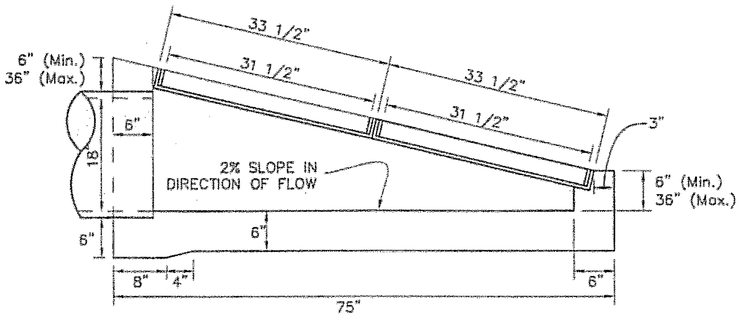
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	J1	179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHARD Date 4-08



SECTION A-A
24" PIPE ON 4:1 SLOPE

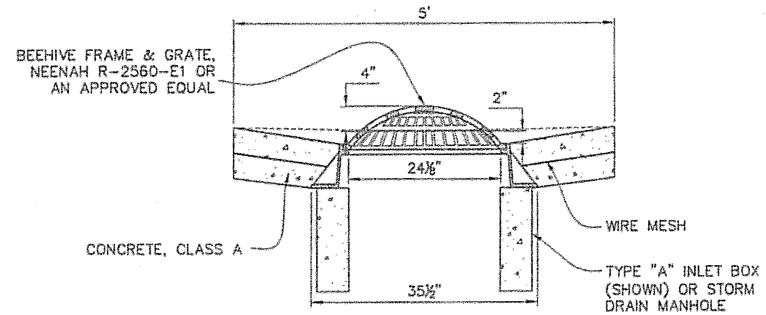


SECTION A-A
18" PIPE ON 4:1 SLOPE

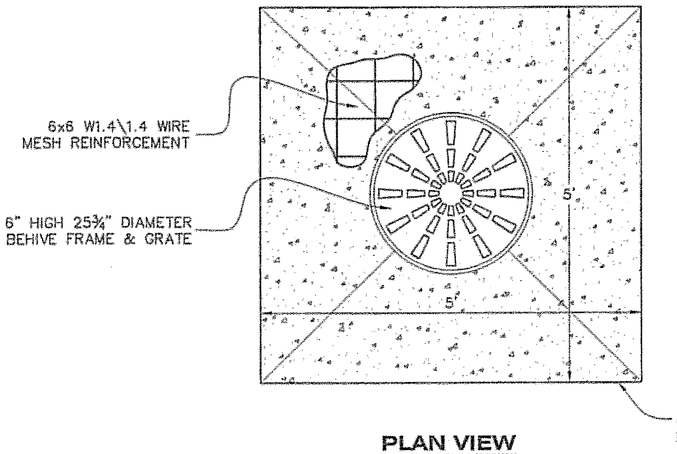
INLET BOX, TYPE C DETAILS

INLET BOX NOTES:

1. FOR 24 INCH PIPE ON 4:1 SLOPE REFER TO STD. DWG. D-44.10 FOR DETAILS NOT SHOWN HERE.
2. MODIFY STD. DWG. D-44.10 TITLE FROM TYPE "D" INLET BOX 24 INCH PIPE ON 4:1 SLOPE TO TYPE "C" INLET BOX 24 INCH PIPE ON 4:1 SLOPE.
3. FOR 18-INCH PIPE ON 4:1 SLOPE REFER TO STD. DWG. D-42.10 FOR DETAILS NOT SHOWN HERE.



ELEVATION



PLAN VIEW
FIELD INLET

FIELD INLET NOTE:
CONSTRUCT A 2' WIDE ROCK COLLAR, WITH TEMPORARY CHECK DAM MATERIAL, AROUND FIELD INLETS WITHOUT CONCRETE DRAINAGE COLLARS.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION
STATE OF ALASKA · Chad S. Howard · CE-10835 · REGISTERED PROFESSIONAL ENGINEER · 4-26-06	SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670
DESIGNED BY: C. HOWARD	MISCELLANEOUS DETAILS
DRAWN BY: R. SNYDER	

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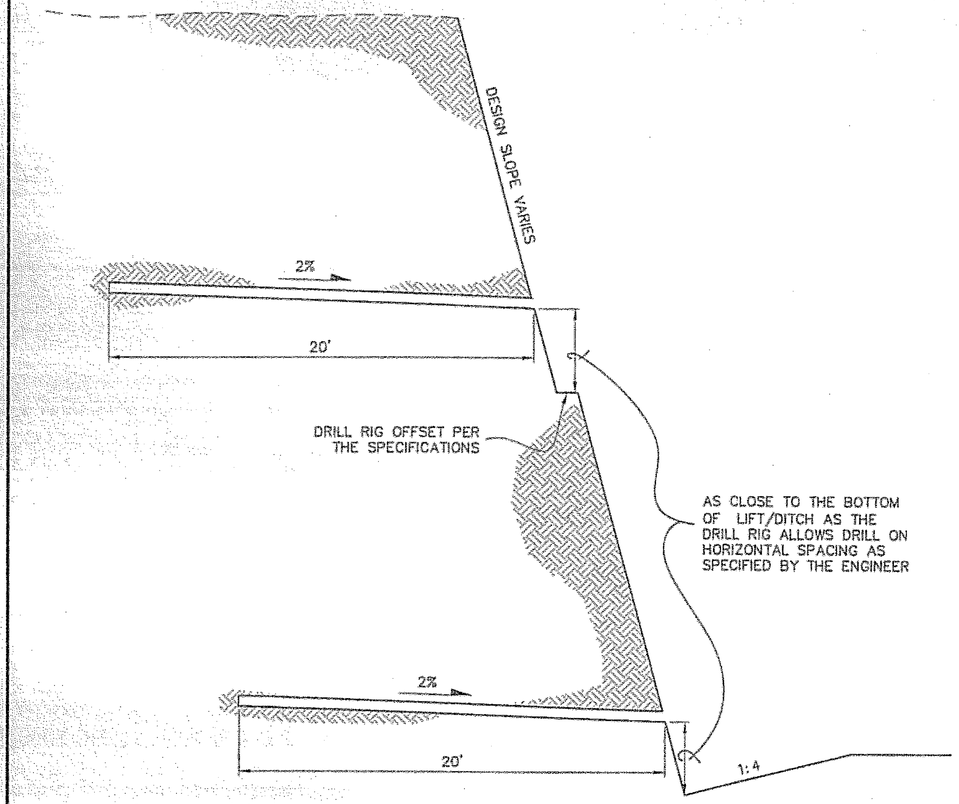
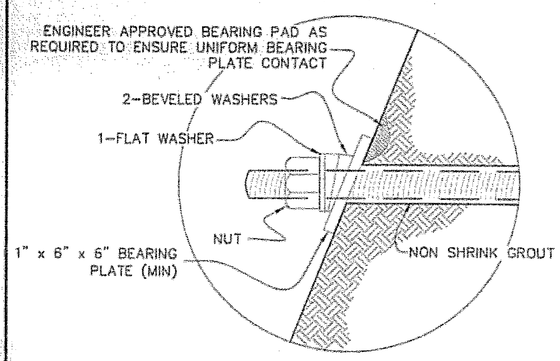
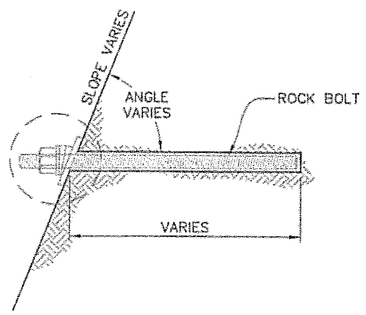
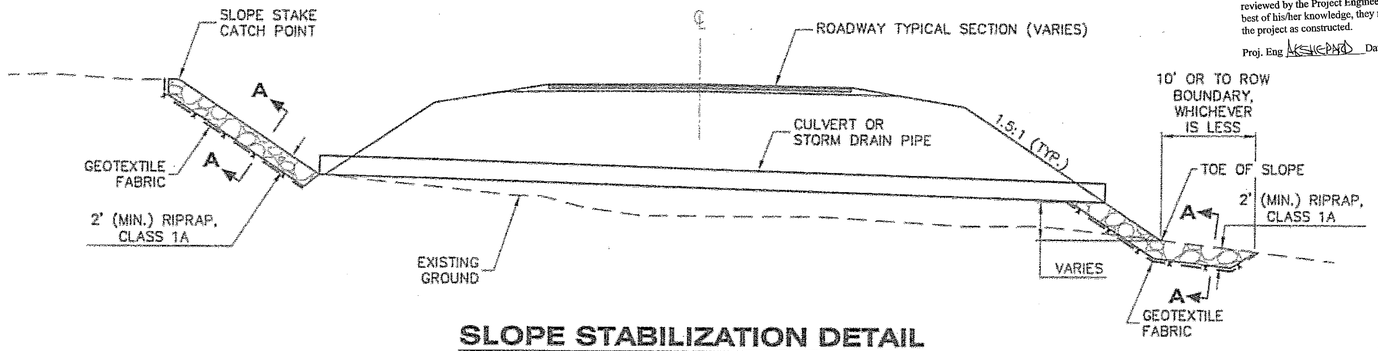


ROCK SLOPE DRAIN HOLE DETAIL

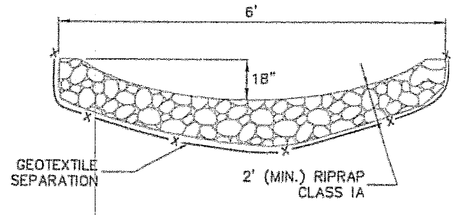




ROCK BOLT DETAIL



SLOPE STABILIZATION DETAIL



SECTION A-A

SLOPE STABILIZATION NOTES:

1. LOCATIONS ARE APPROXIMATE AND REQUIRE FEILD ADJUSTMENTS.
2. USE SLOPE STABILIZATION DETAIL WHEN ORDERED BY THE ENGINEER.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date 4/27/09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS DETAILS

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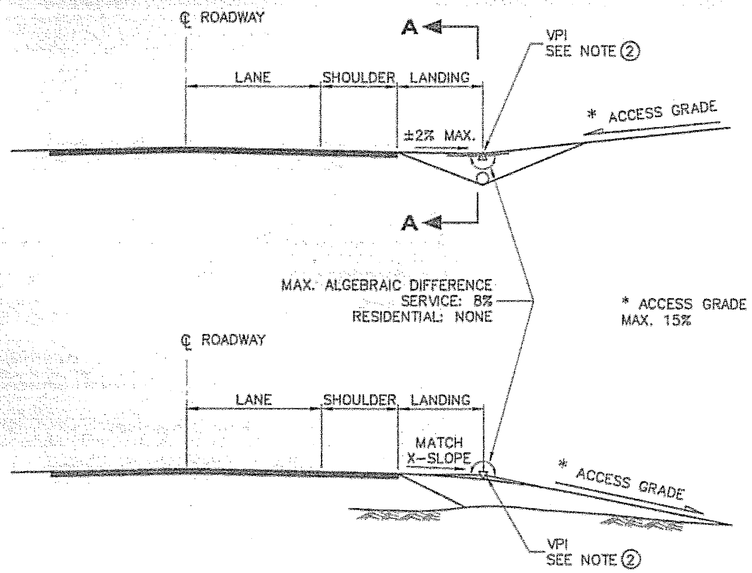
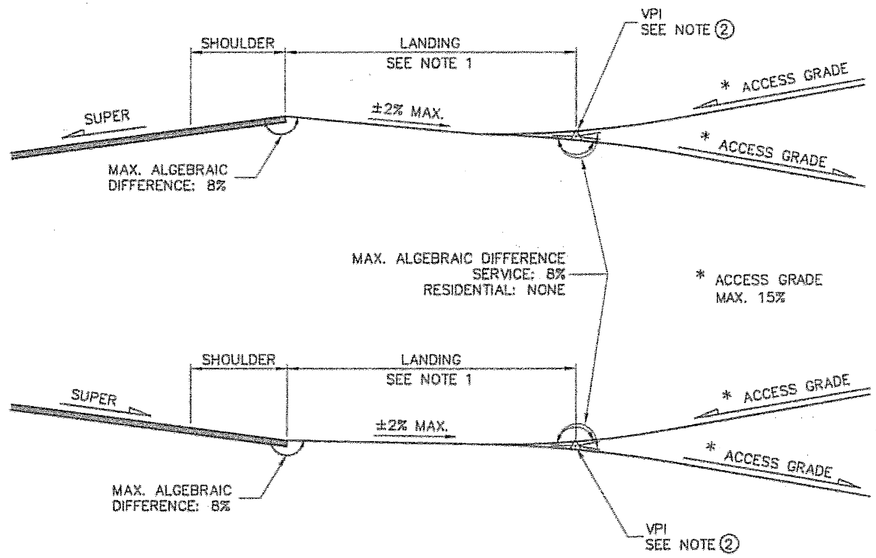
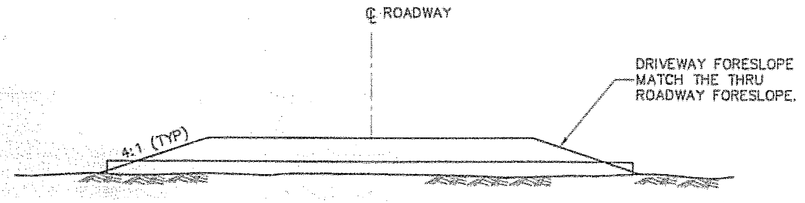


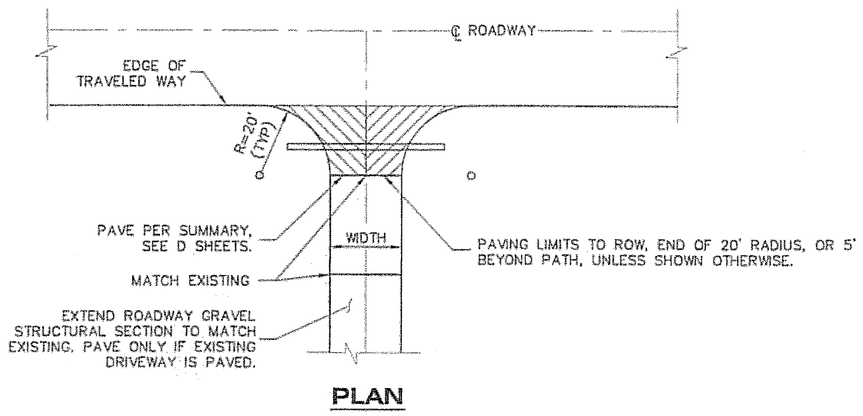
DRIVEWAY PROFILES ON TANGENTS



DRIVEWAY PROFILES WITH SUPER



SECTION A-A



PLAN

DRIVEWAY DETAILS

LANDING TABLE	
DRIVEWAY TYPE	LENGTH ①
RESIDENTIAL	10'

NOTES:

① SEE PLANS, OTHERWISE USE LANDING TABLE.

② DRIVEWAY VERTICAL CURVES REQUIREMENTS:
CREST–¾" MAXIMUM HUMP IN 10' CHORD
SAG–2" MAXIMUM DEPRESSION IN 10' CHORD

③ SEE D SHEETS, DRIVEWAY SUMMARY, FOR WIDTHS, RADII, AND PAVING LIMITS.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ARHOWARD Date 9-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

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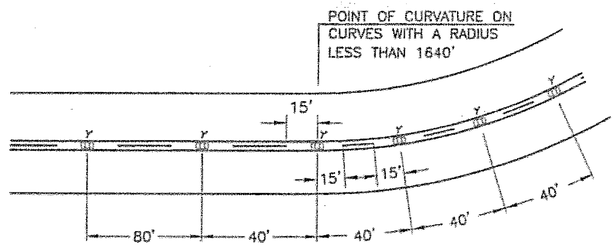
REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	MGS-STP-0902(20)	2006	J4	179

RPM SUMMARY TABLE

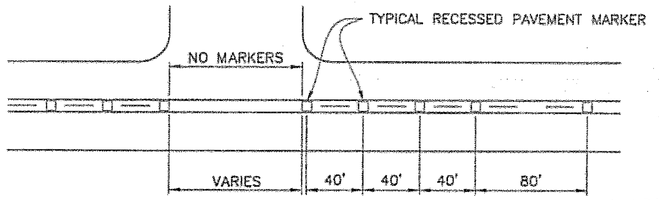
STATION TO STATION	SPACING 20	SPACING 40	SPACING 80	QUANTITY Yellow/Yellow	QUANTITY Red/White	REMARKS
161+00-161+40		x		2		
161+40-162+20			x	1		
162+20-168+20		x		15		
168+20-169+00			x	1		
169+00-173+00		x		10		
173+00-181+00			x	10		
181+00-184-10		x		7		
184+10-188+10			x	5		
188+10-192+85		x		11		
192+85-193+65			x	1		
193+65-198+25		x		11		(2 each)
198+25-201+05	x			28	7	
201+05-202+50	x			7		
203+70-205+70	x			19		
205+70-215+30		x		24		
215+30-216+10			x	1		
216+20-219+60		x		7		
219+60-228+40			x	11		
228+40-233+20		x		12		
233+20-237+20			x	5		
237+20-240+40		x		8		
240+40-249+80			x	12		
249+80-250+60		x		2		
TOTAL				210	7	

RECESSED PAVEMENT NOTES:

1. INSTALL REFLECTIVE PAVEMENT MARKERS ALONG ENTIRE PROJECT. RPM'S SHALL NOT BE PLACED IN INTERSECTIONS WITH PUBLIC ROADWAYS.
2. RPM SPACING SHALL START OVER AT INTERSECTION BOUNDARY.
3. ONLY PUBLIC ROADWAYS WILL BE MARKED AS INTERSECTION APPROACHES.
4. REFLECTIVE PAVEMENT MARKERS SHALL HAVE DUAL YELLOW REFLECTIVE SURFACES FOR TWO-LANE ROADWAY AREAS.
5. THE LOCATIONS OF ALL PASSING AND NO-PASSING ZONES SHALL BE DETERMINED AND LOCATED IN THE FIELD BY THE ENGINEER. NO PASSING ZONE MARKING GROOVES SHALL BE CONSIDERED INCIDENTAL TO ITEM 670 (8), RECESSED PAVEMENT MARKINGS AND NO SEPARATE PAYMENT WILL BE MADE THEREFORE.
6. SEE STD. DWG. T-06.00 FOR DETAILS NOT SHOWN HERE.



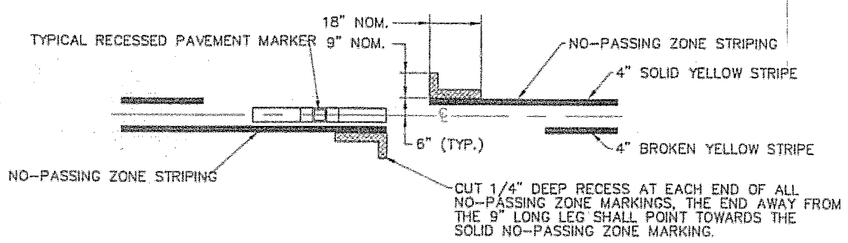
TWO LANE - TWO WAY



TYPICAL EACH SIDE OF INTERSECTION

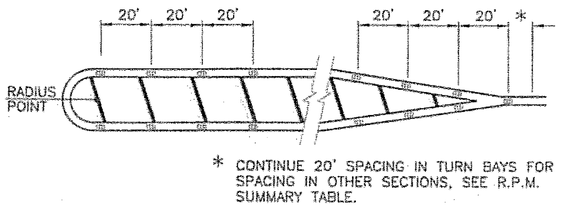
INTERSECTION APPROACH

RECESSED PAVEMENT MARKER LAYOUT PLANS



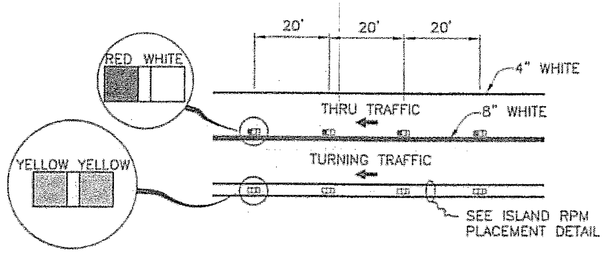
DETAIL

NO-PASSING ZONE MARKING GROOVE



* CONTINUE 20' SPACING IN TURN BAYS FOR SPACING IN OTHER SECTIONS, SEE R.P.M. SUMMARY TABLE.

PAINTED ISLAND RPM PLACEMENT



DETAIL

TURN BAY RPM PLACEMENT

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-27

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
Chad L. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS DETAILS

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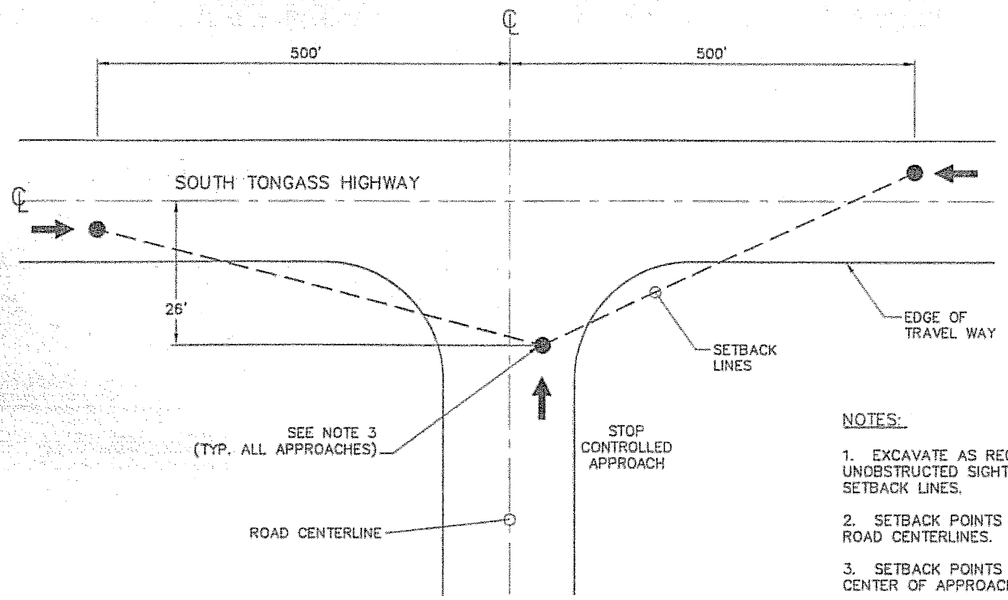
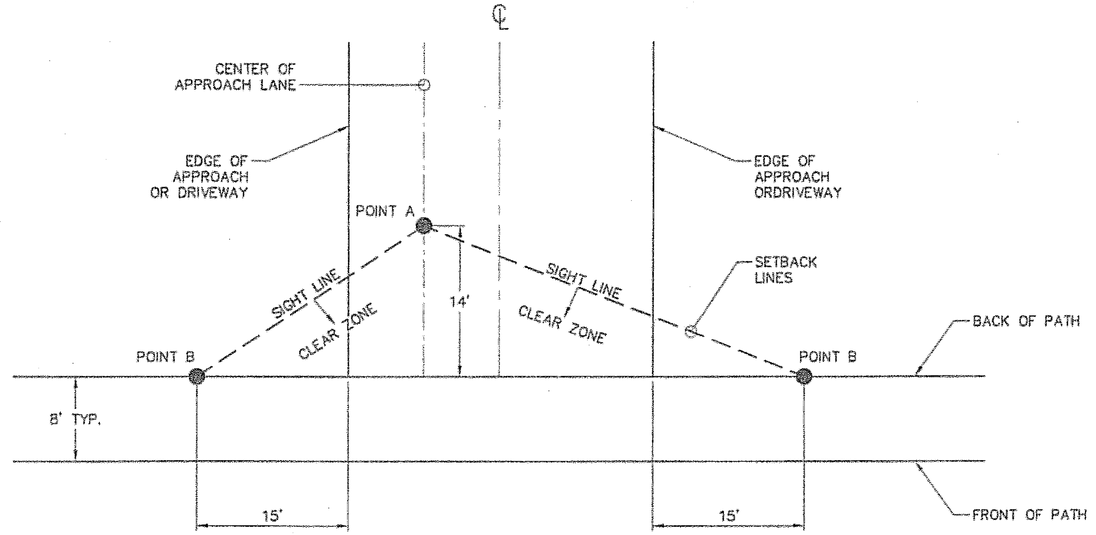


Excavation Limits for Sight Distance at Intersections

NOTES:

1. EXCAVATE AS REQUIRED TO PROVIDE UNOBSTRUCTED SIGHT ALONG THE SETBACK LINES.
2. SETBACK POINTS MEASURED FROM ROAD CENTERLINES.
3. SETBACK POINTS MEASURED FROM CENTER OF APPROACH LANE.
4. EXCAVATION REQUIRED FOR SIGHT DISTANCE SHALL BE PAID FOR AS UNCLASSIFIED EXCAVATION.
5. NOTIFY PROJECT ENGINEER WHEN SIGHT OBSTRUCTIONS ARE LOCATED OUTSIDE THE ROW.



Excavation Limits for Sight Distance Along Path at Driveways and Approach Roads

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEPARD Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA · 10th · Chad J. Howard · CE-10835 · REGISTERED PROFESSIONAL ENGINEER

4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS DETAILS

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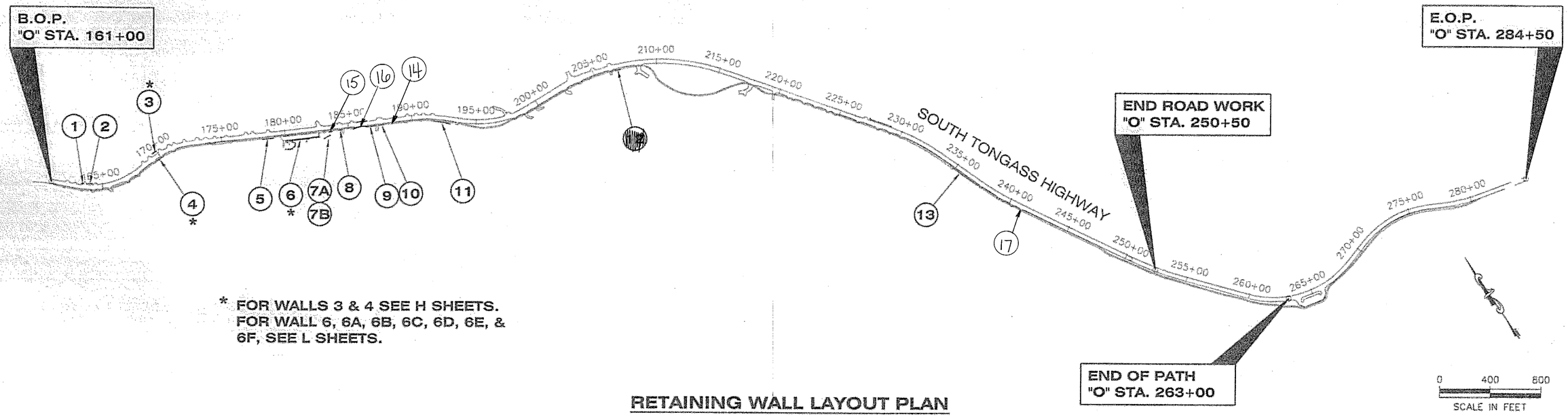
TAB: J6 Thu, 20/Apr/06 03:42PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	J6	179



* FOR WALLS 3 & 4 SEE H SHEETS.
FOR WALL 6, 6A, 6B, 6C, 6D, 6E, & 6F, SEE L SHEETS.

RETAINING WALL LAYOUT PLAN

MSE & CONCRETE RETAINING WALL TABLE

WALL NO.	BEGIN "O" STATION	END "O" STATION	OFFSET (ft)	MSE AREA (ft2)	CONCRETE AREA (ft2)	REMARKS
3	169+60	169+98	34.5 LT			SEE H SHEETS FOR DETAILS
4	169+58	170+00	30.9 RT			SEE H SHEETS FOR DETAILS
6	178+83	180+87	67.5 RT			SEE L SHEETS FOR DETAILS
9	186+30	187+12	27 RT			
10	187+40	187+76	27 RT			
13	234+83	237+20	27-30 RT	1850		
7B2	183+41	183+72		290		
			TOTAL	3700	650	

ROCKERY WALL TABLE

WALL NO.	BEGIN "O" STATION	END "O" STATION	OFFSET (ft)	ROCKERY AREA (ft2)	REMARKS
1	163+33	163+52	26 LT	68.0	
2	163+74	164+24	26 LT	181.5	
5	178+20	179+10	33.5 RT	517.0	
~~6A~~				~~53~~	~~SEE L SHEETS FOR DETAILS~~
~~6B~~				~~58~~	~~SEE L SHEETS FOR DETAILS~~
~~6C~~				~~21~~	~~SEE L SHEETS FOR DETAILS~~
~~6D~~				~~44~~	~~SEE L SHEETS FOR DETAILS~~
~~6E~~				~~60~~	~~SEE L SHEETS FOR DETAILS~~
6F				320.7	SEE L SHEETS FOR DETAILS
7A2	183+21	183+70	32 RT	389.8	
7B	~~183+05~~	~~183+50~~	~~80-60 RT~~	~~330~~	CHANGED TO MSE
8	184+22	184+49.5	27 RT	123.5	
11	191+74	193+06	30.5-38.5 RT	682.4	
~~12~~	~~206+70~~	~~206+85~~	~~31 RT~~	~~45~~	
14	188+37	188+50	RT	28.6	
15	184+65	185+25	RT	128.9	
16	186+50	187+20	LT	512	
17	241+90	243+95	RT	777.6	

RETAINING WALL NOTES:

1. FOR RETAINING WALL LOCATIONS & DETAILS, SEE SHEETS K1–K3. FOR ALL LAYOUT PLANS & PROFILES, SEE SHEETS K4–K12.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ARSHEARD Date 4-28

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
Chad J. Howard
CE-10835
PROFESSIONAL ENGINEER
4-26-06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL DETAILS

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TAB: K1 Fri, 21/Apr/06 11:43AM lrobertson

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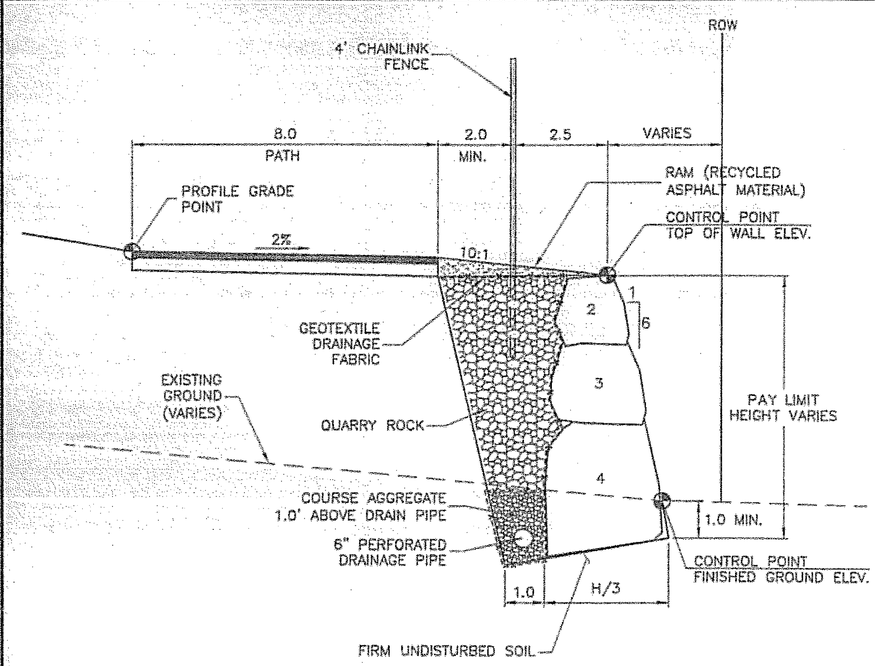
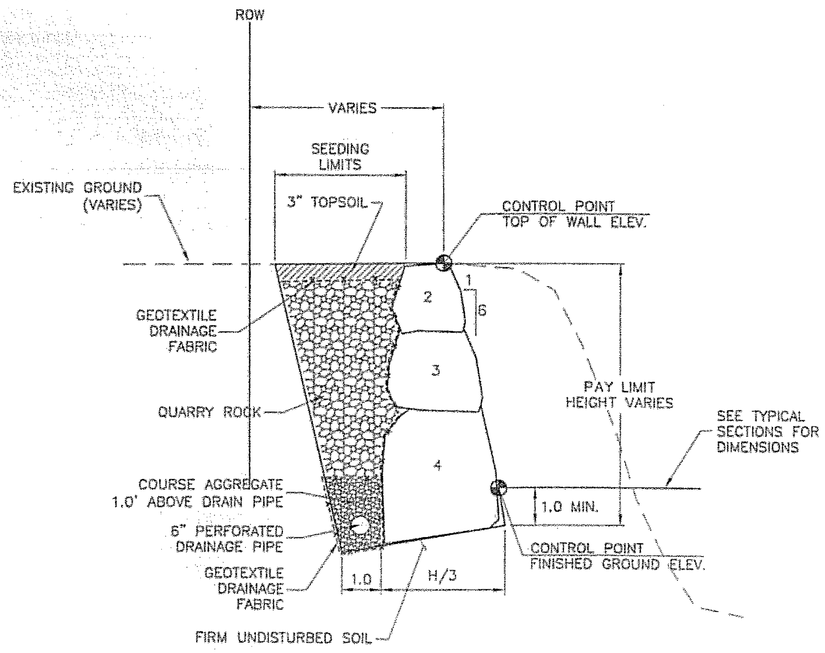


ROCKERY WALL @ FILL SECTION

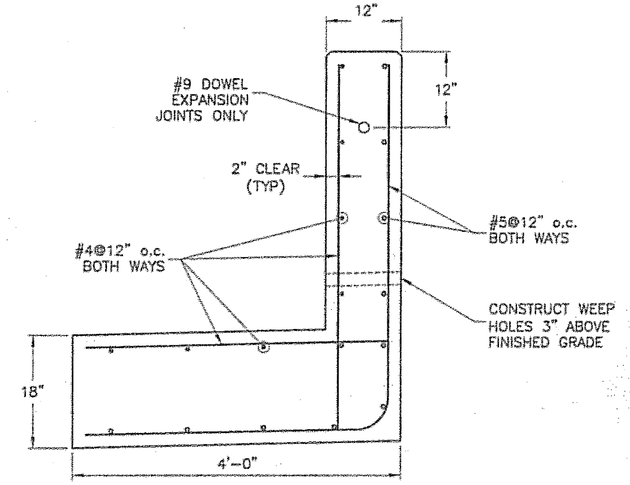


ROCKERY WALL @ CUT SECTION

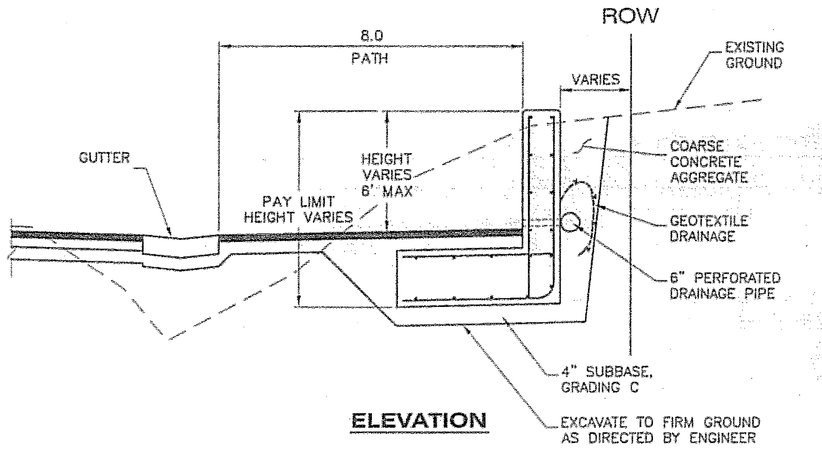
ROCKERY WALL NOTES:

1. ROCK WALL LOCATION, OFFSETS AND BASE COURSE SHALL BE APPROVED BY THE PROJECT ENGINEER.
2. PLACE LONG AXIS OF EACH COURSE PERPENDICULAR TO WALL.
3. ROCK COURSES SHALL BE INTERLOCKED INTO TWO ROCKS AND BEARING INTO EACH SURFACE.
4. ROCKERIES 7 FEET AND LOWER SHALL BE CONSTRUCTED OF 4 MAN TO 2 MAN ROCKS FROM BOTTOM TO TOP.
5. ROCKERIES 7 FEET AND HIGHER SHALL BE CONSTRUCTED OF 5 MAN TO 2 MAN ROCKS FROM BOTTOM TO TOP.
6. THE SIZE CATEGORIES FOR ROCK SHALL BE AS FOLLOWS:

SIZE	APPROXIMATE WEIGHT	DIMENSIONS
2MR	300 TO 800 LBS	12–18 INCHES
3MR	800 TO 1500 LBS	18–24 INCHES
4MR	1500 TO 2000 LBS	24–32 INCHES
5MR	2000 TO 3000 LBS	32–36 INCHES

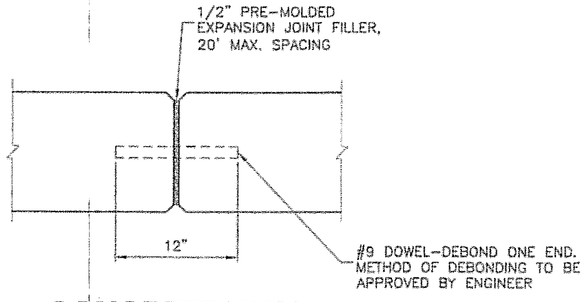


SECTION
NTS



ELEVATION

CONCRETE WALL DETAIL



CONCRETE WALL EXPANSION JOINT DETAIL
NTS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng (signature) Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA – REGISTERED PROFESSIONAL ENGINEER – Chad J. Howard – CE-10835 – 4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

ROCKERY & CONCRETE WALL DETAILS

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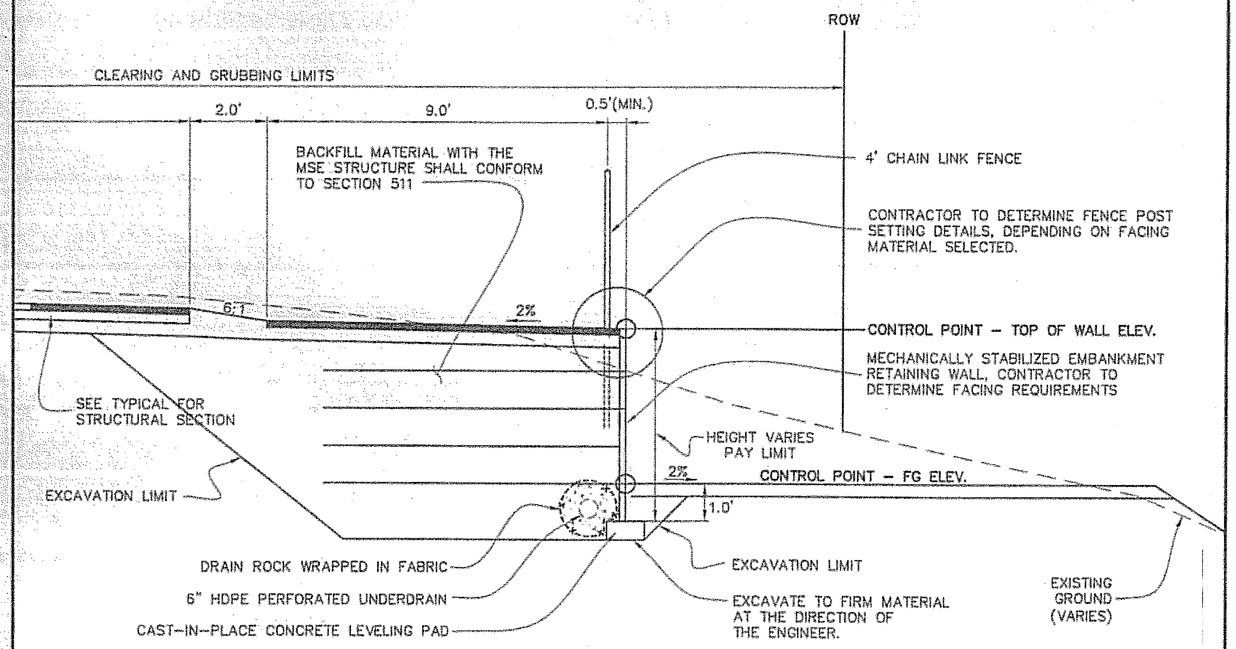
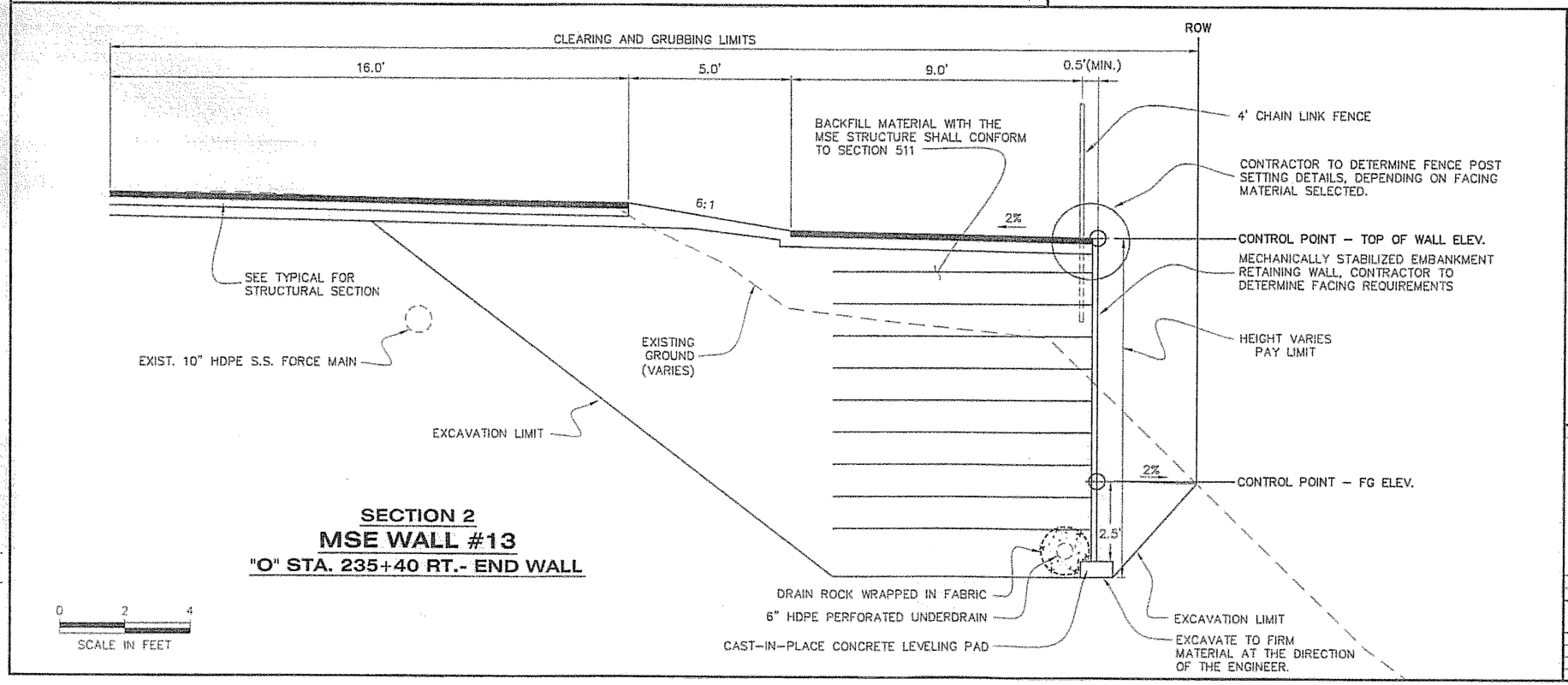


SECTION 1
MSE WALL #13
BEGIN WALL - "O" STA. 235+40 RT.



SECTION 2
MSE WALL #13
"O" STA. 235+40 RT.- END WALL

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ASGEARD Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MSE RETAINING WALL SECTIONS

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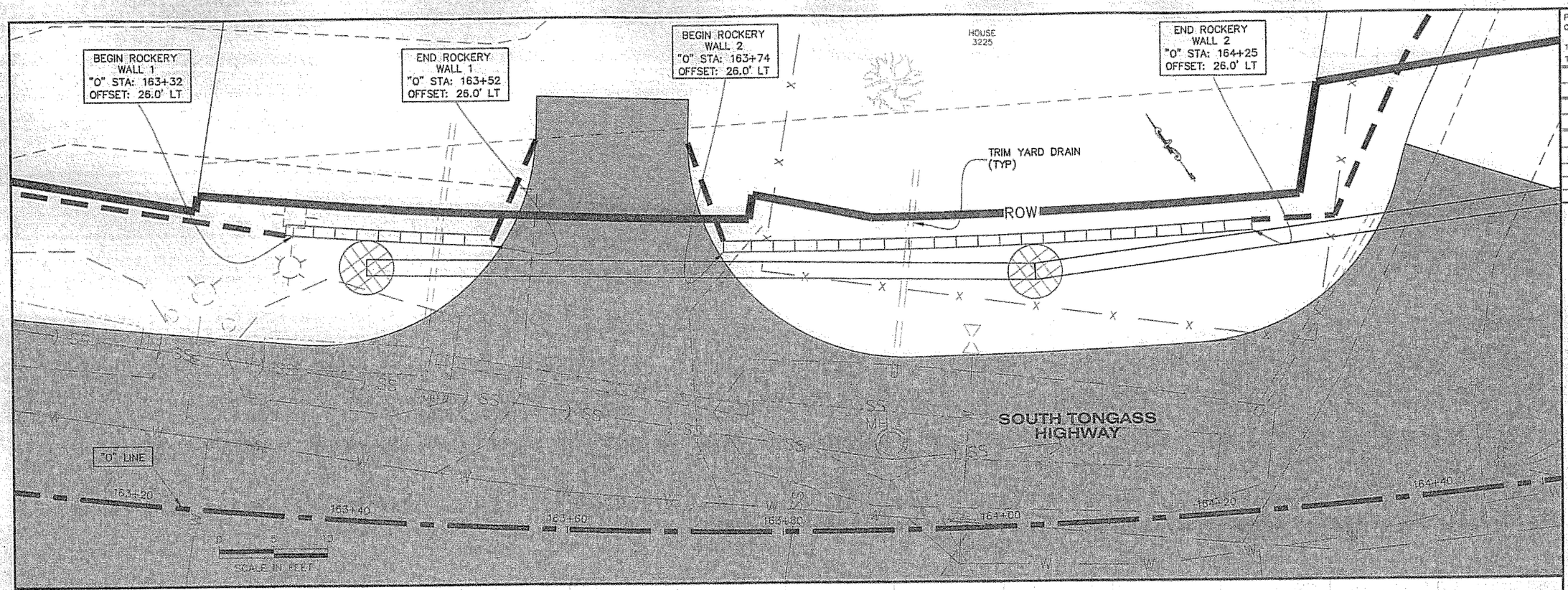

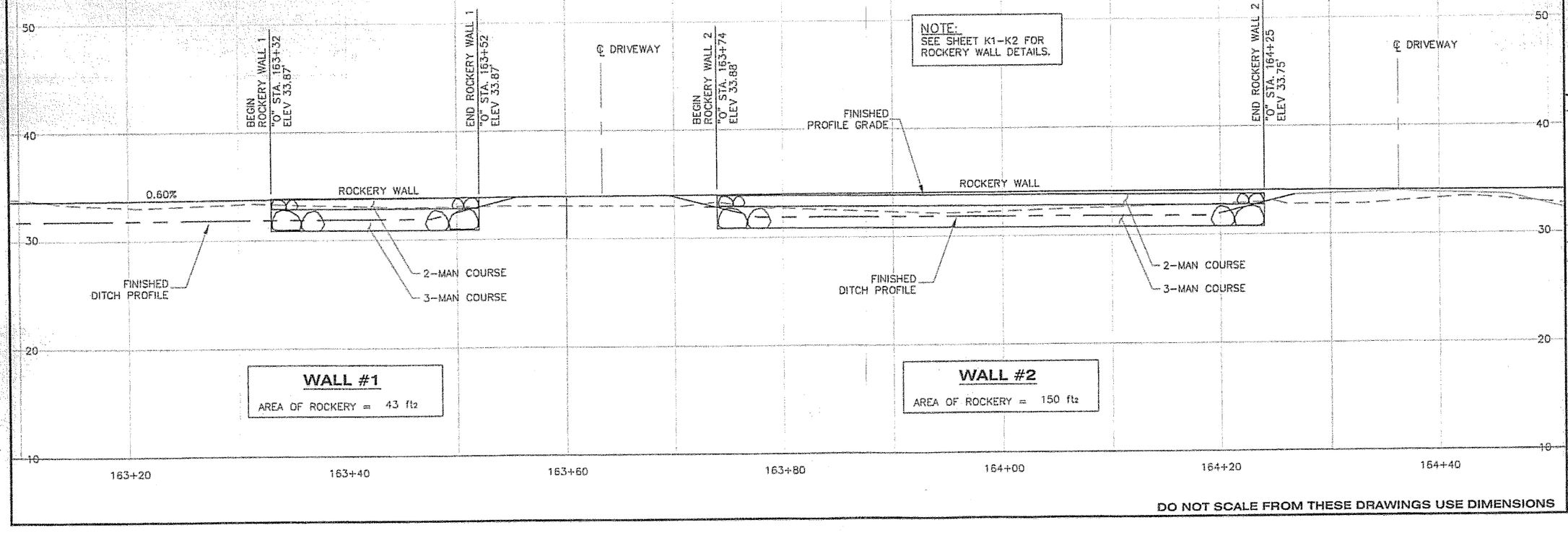

WALL #1
AREA OF ROCKERY = 43 ft²

WALL #2
AREA OF ROCKERY = 150 ft²

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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ADDENDUM NUMBER

ATTACHMENT NUMBER

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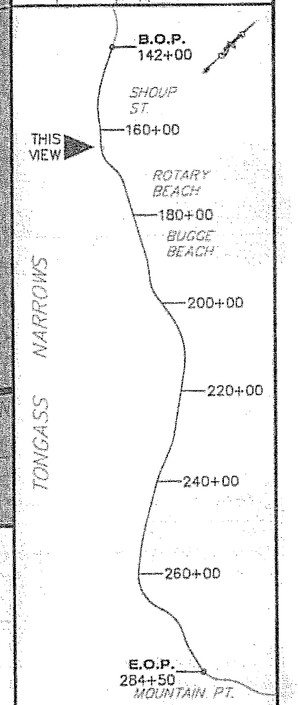
	Proj. Eng [illegible] Date 4-05



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

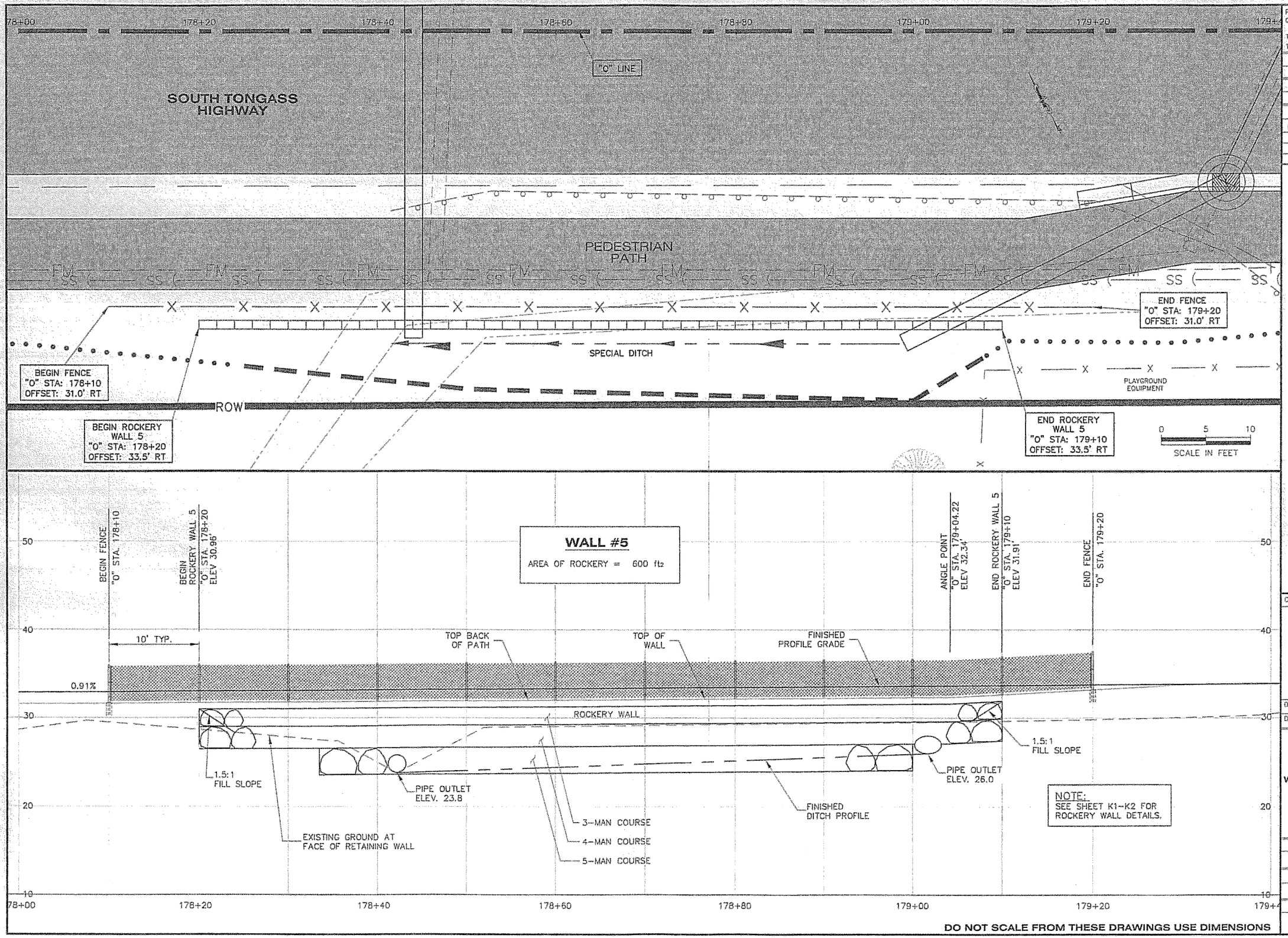
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K4	179



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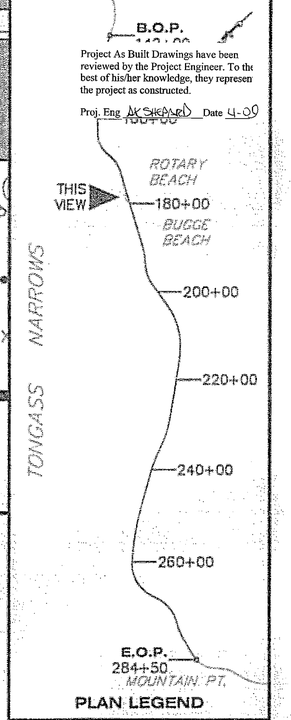


PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng M. SHEPARD Date 4-06

CHECKED BY: P. CARROLL

STATE OF ALASKA — 49th — REGISTERED PROFESSIONAL ENGINEER — Chad J. Howard CE-10835

4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K5	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

BEGIN FENCE
"0" STA: 183+89
OFFSET: 29.0' RT

BEGIN ROCKERY
WALL 7A
"0" STA: 183+21
OFFSET: 32.0' RT

BEGIN FENCE
"0" STA: 183+40
OFFSET: 29.0' RT

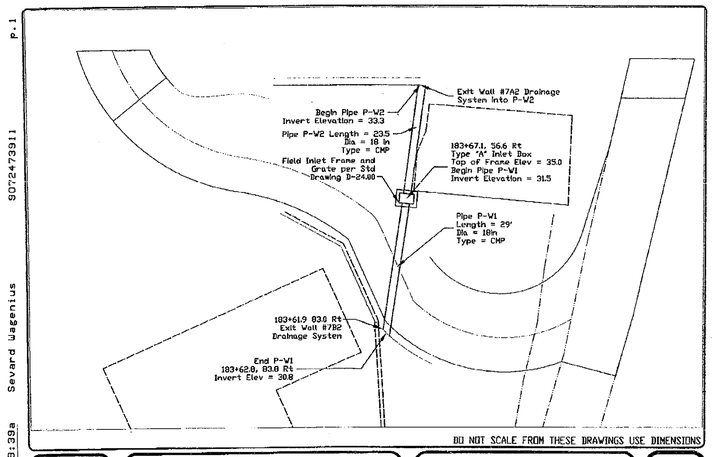
SOUTH TONGASS HIGHWAY

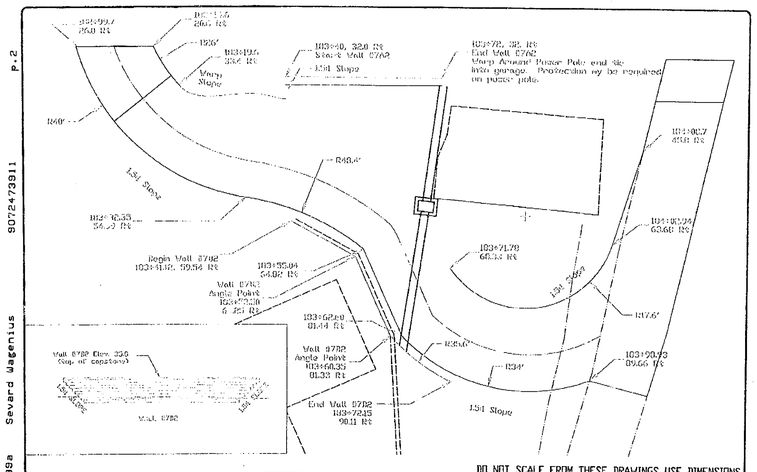
PEDESTRIAN PATH

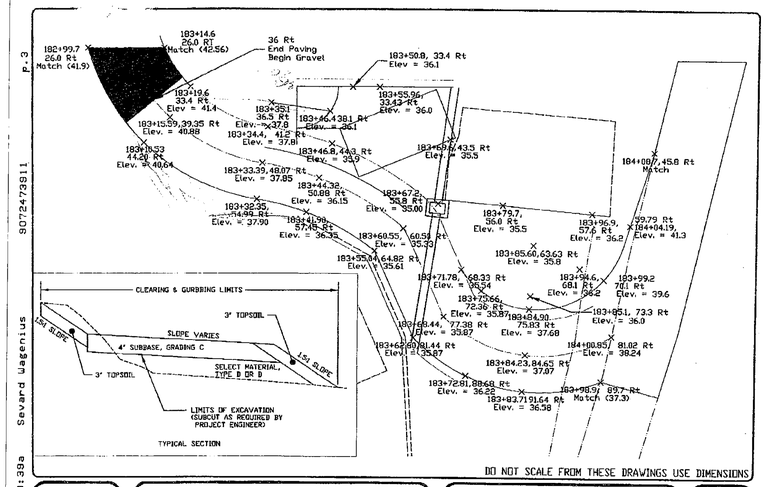
ROW

FM

SS

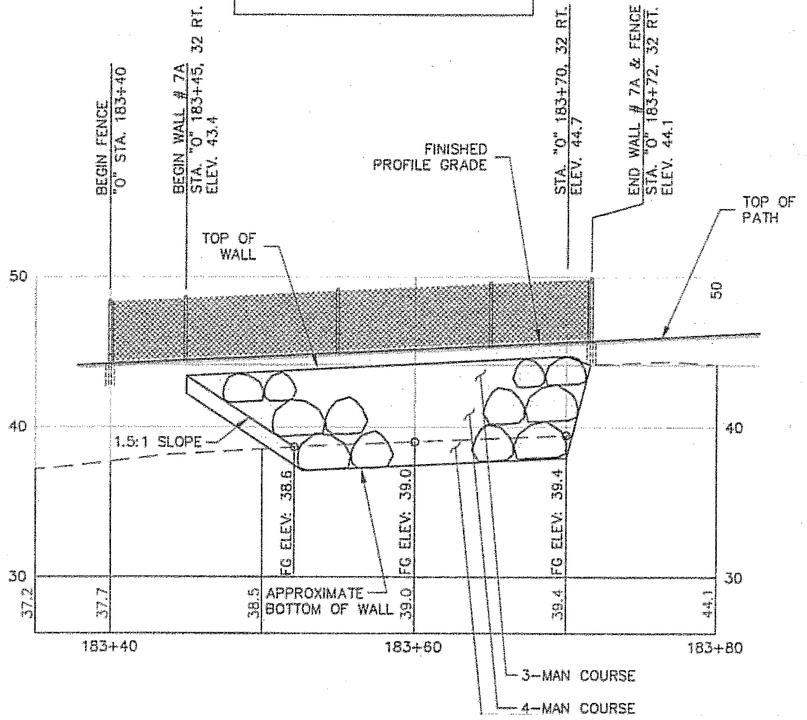






WALL #7A

AREA OF ROCKERY WALL = 150 ft²



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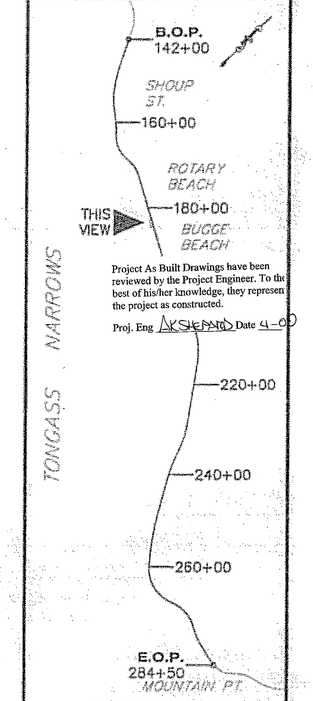


PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-06

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

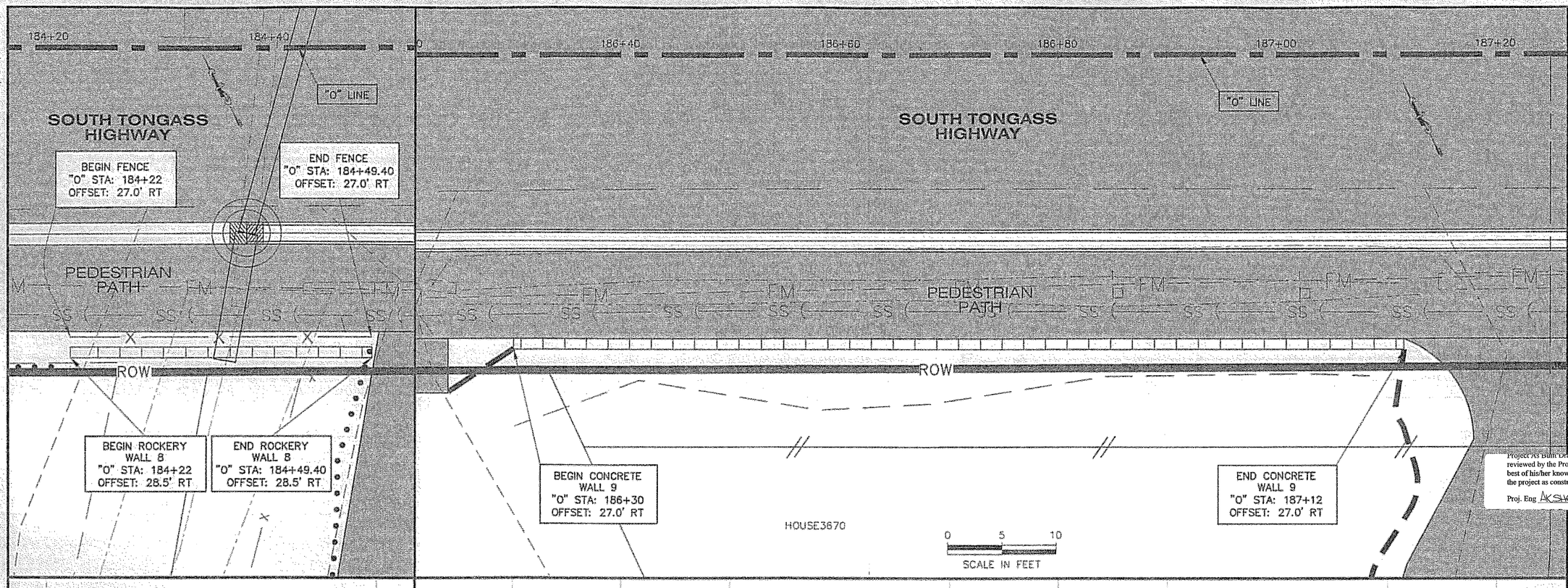
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

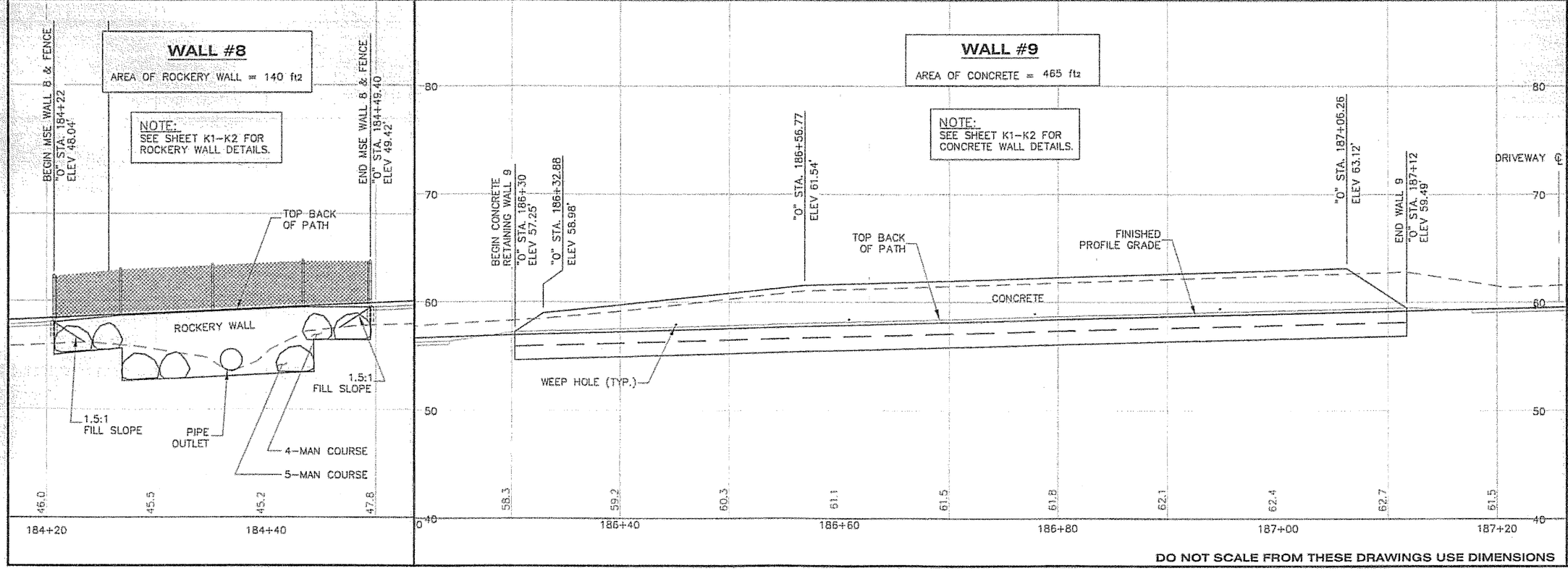
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K6	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS





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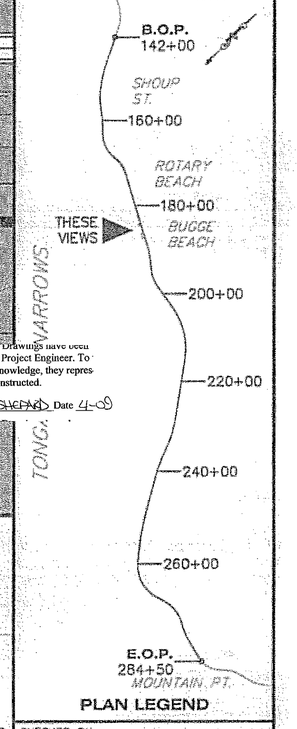


PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng AK SHEPARD Date 4-26

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

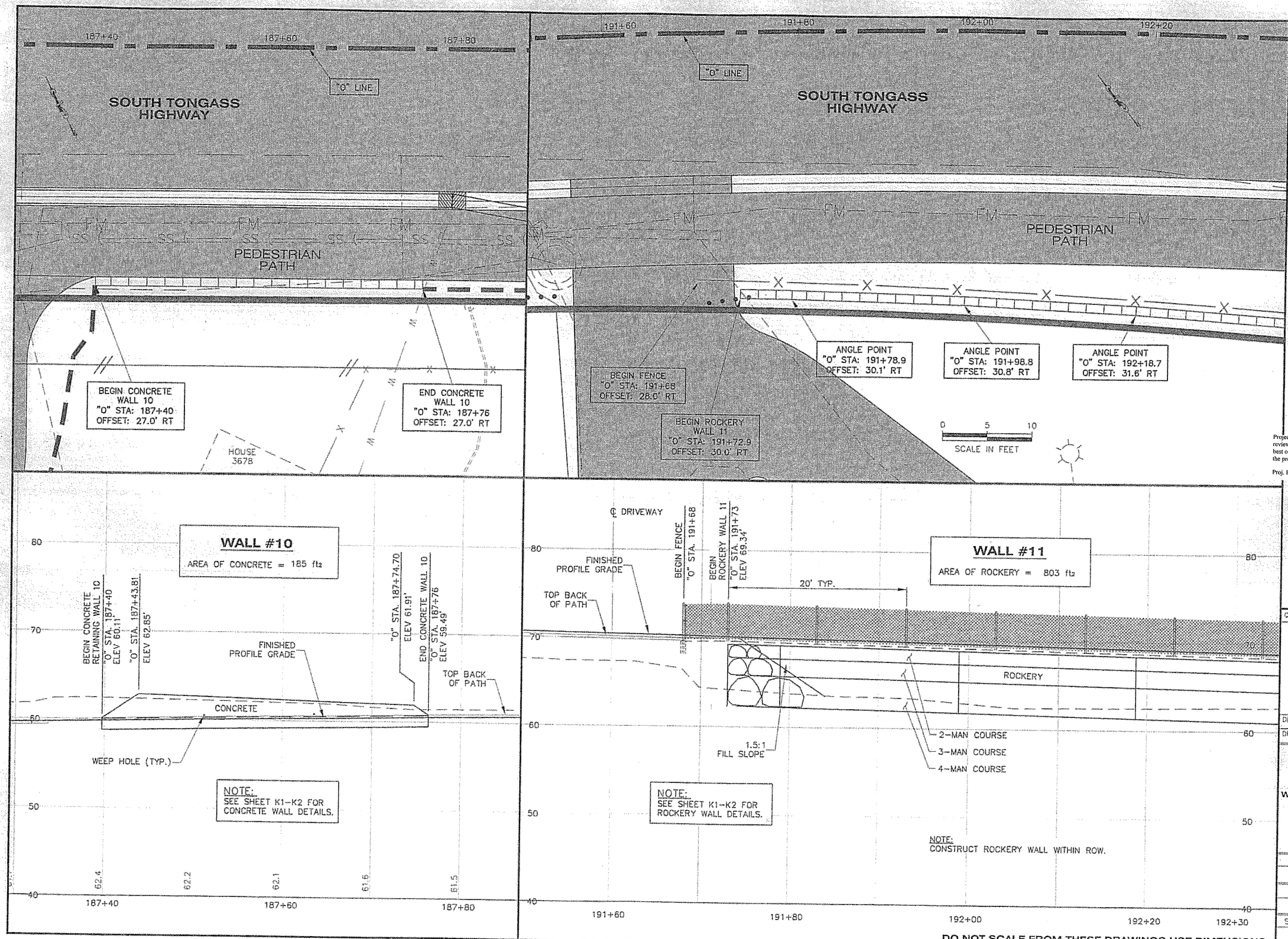
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K7	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



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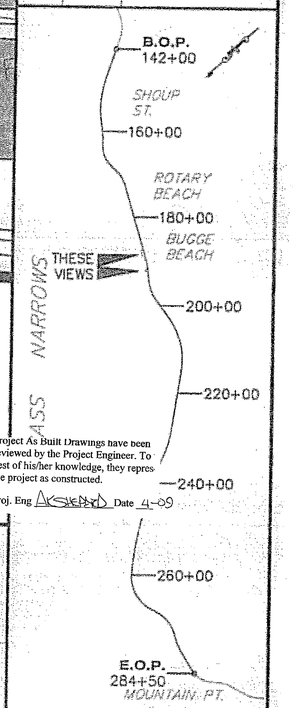


PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng [signature] Date 4-09

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

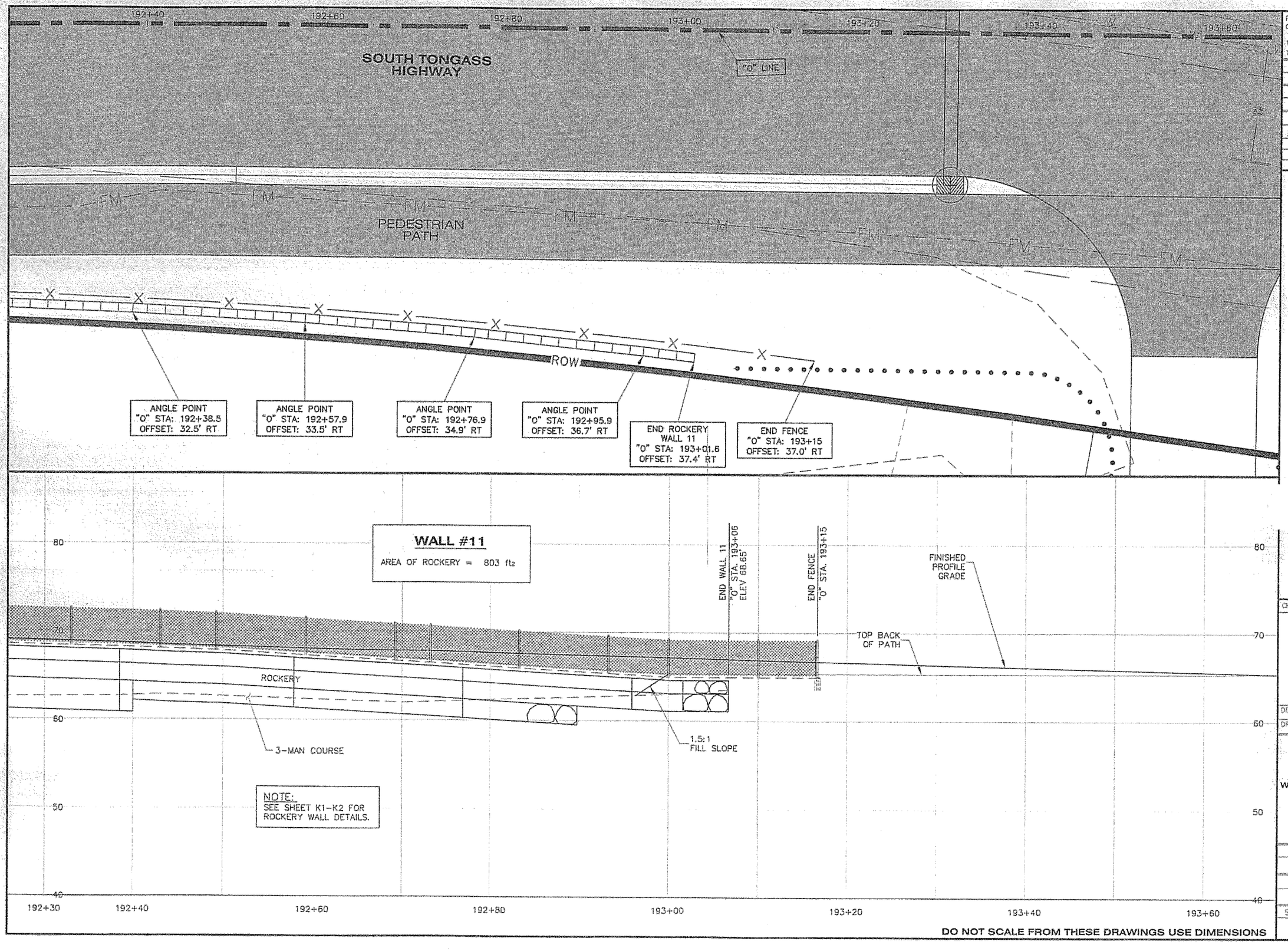
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K8	179



NOTE:
SEE SHEET K1-K2 FOR ROCKERY WALL DETAILS.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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ADDENDUM NUMBER

ATTACHMENT NUMBER

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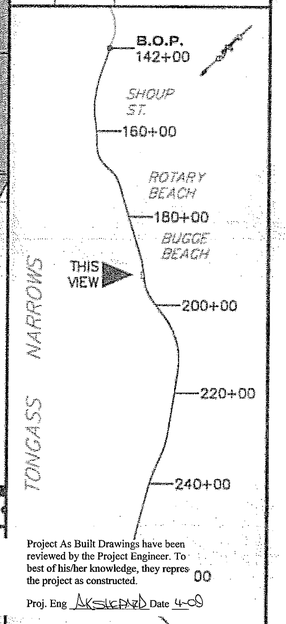


Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed. 00

Proj. Eng AKSLAND Date 4-06

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10635
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K9	179

BEGIN ROCKERY WALL 12
"0" STA. 206+70
OFFSET: 31.0' RT

END ROCKERY WALL 12
"0" STA. 206+85
OFFSET: 31.0' RT

PEDESTRIAN PATH

FM

ROCK WALL

ROW

STAIRS

HOUSE #4056

BEGIN ROCKERY WALL 12
"0" STA. 206+70
ELEV 30.10'

END ROCKERY WALL 12
"0" STA. 206+65
ELEV 30.43'

WALL #12

AREA OF ROCKERY WALL = 370 ft²

TOP OF WALL & PATH

FINISHED PROFILE GRADE

ROCKERY WALL

1.5:1 FILL SLOPE (TYP)

EXISTING GROUND

2-MAN COURSE

3-MAN COURSE

APPROX. BOTTOM OF WALL

NOTE:
SEE SHEET K1-K2 FOR ROCKERY WALL DETAILS.

ELIMINATED

50
40
30
20
10

206+20 206+40 206+60 206+80 207+00 207+20 207+40

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PA / C:\ / Tue / TA

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.

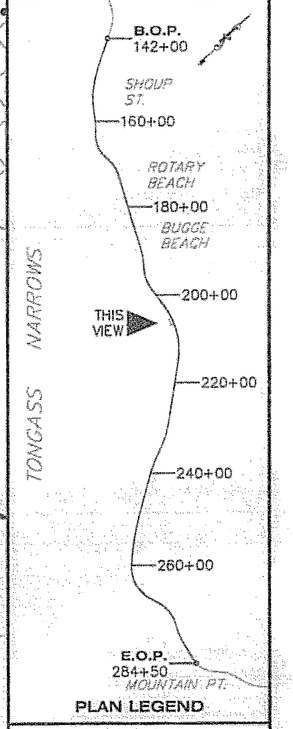
Proj. Eng [signature] Date 4-26-06

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

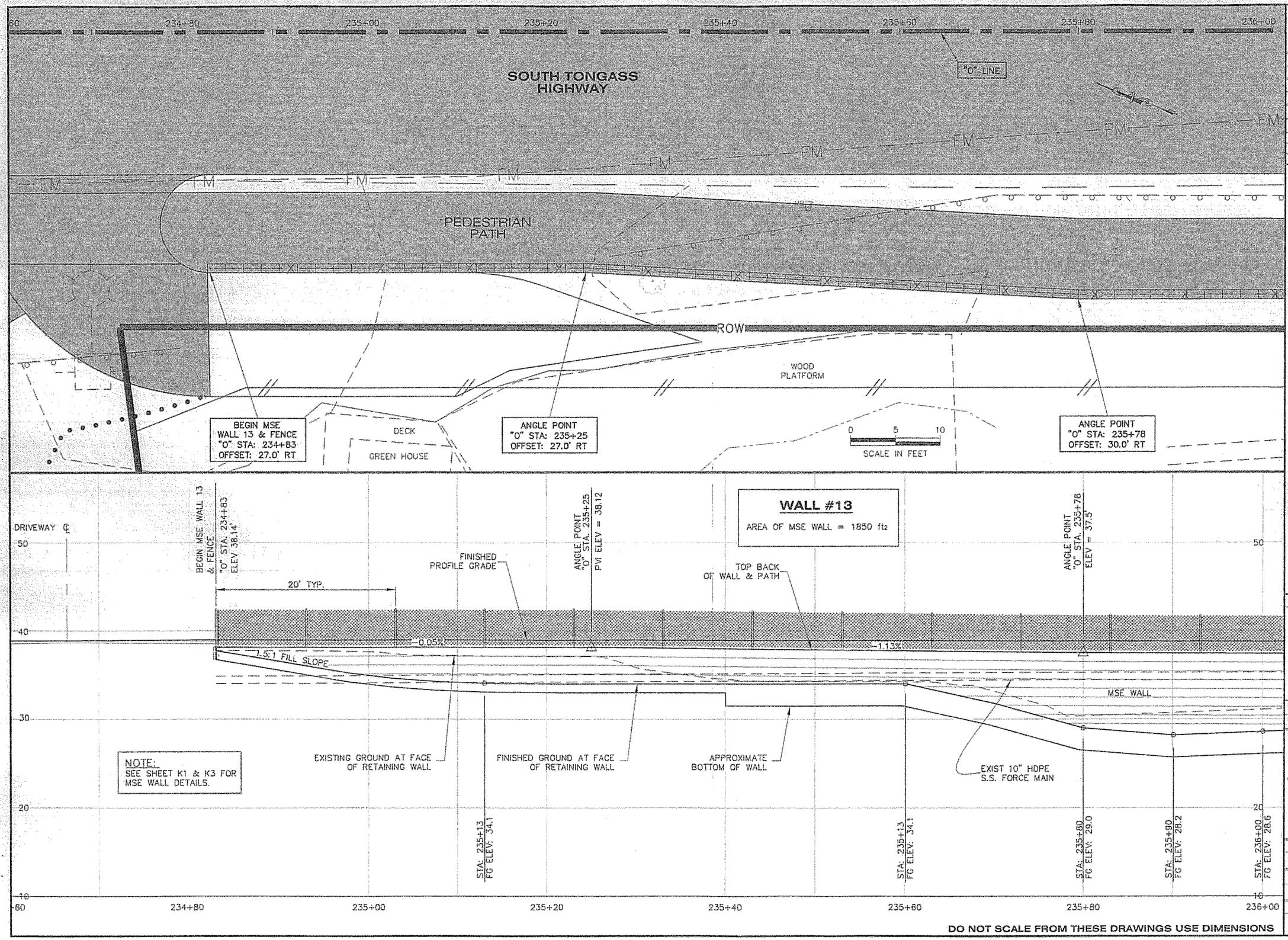
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K10	179



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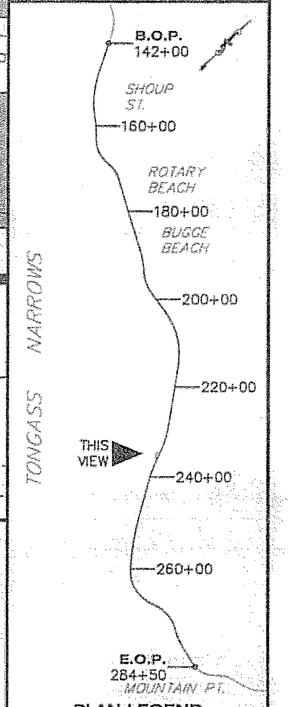
ADDENDUM NUMBER

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng _____ Date 4-26

No. DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
19th
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

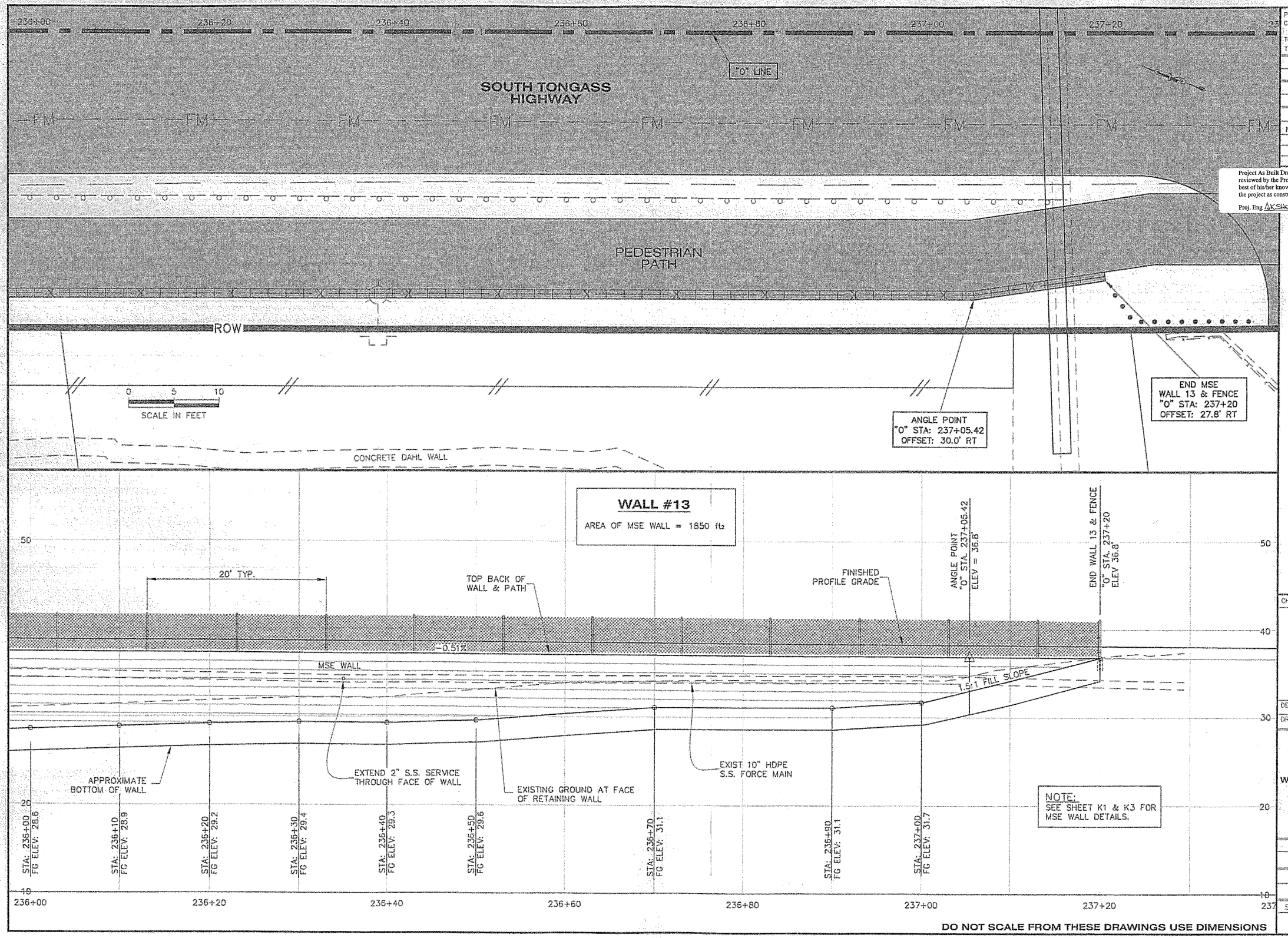
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K11	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



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ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

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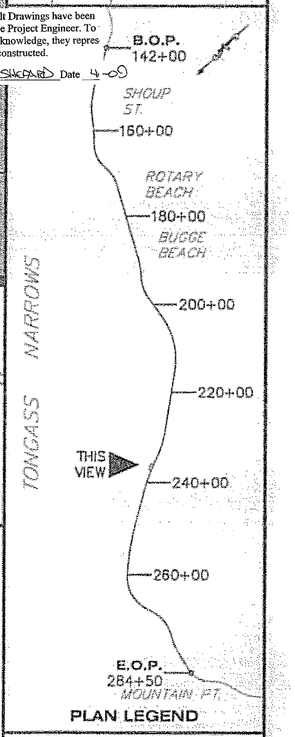
Proj. Eng AK SHEPARD Date 4-06



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA 19th Chad J. Howard CC-10835 REGISTERED PROFESSIONAL ENGINEER
4-26-06

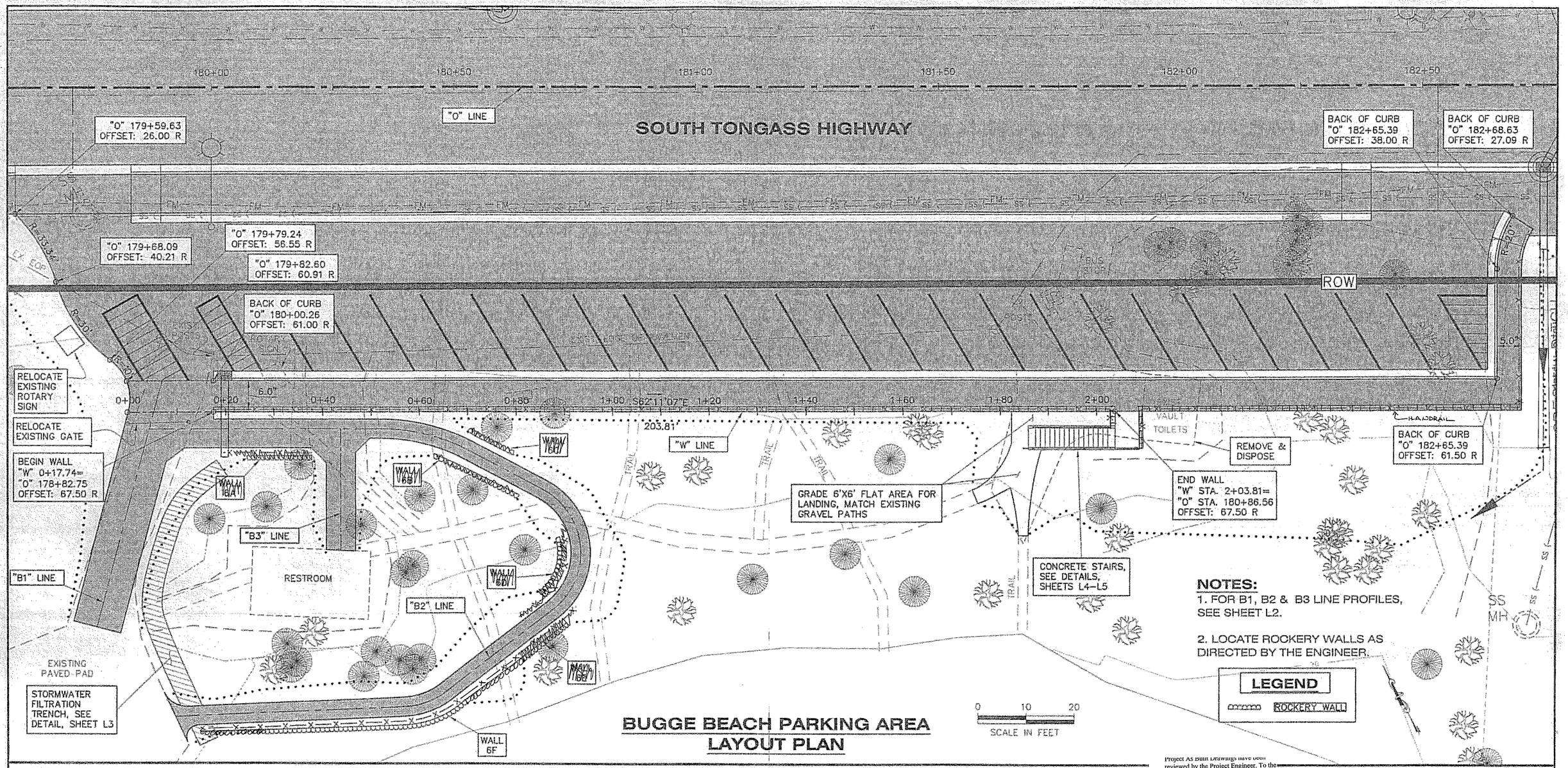
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

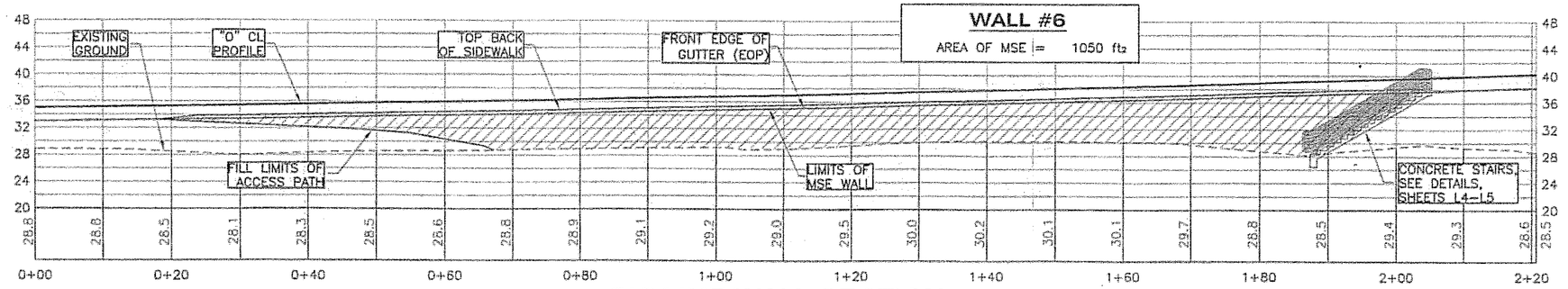
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

RETAINING WALL PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
K12	179



BUGGE BEACH PARKING AREA LAYOUT PLAN



"W" LINE WALL SECTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK Sweppard Date 4-0

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
Chad JE Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

BUGGE BEACH DETAILS

PATH: O:\Ktn\71670\Plansel\L-M_Turnouts+Misc.dwg
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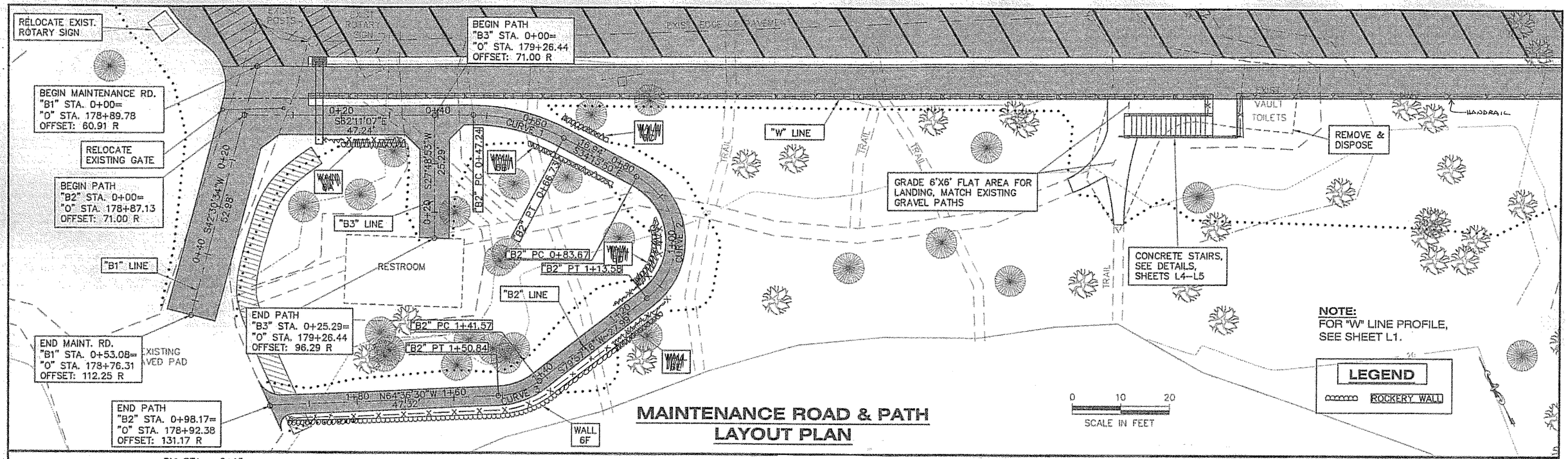
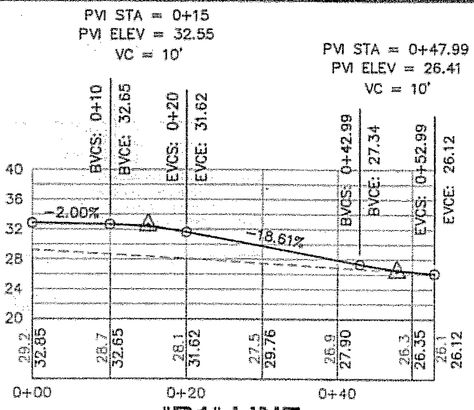
REVISIONS NO.	DATE	DESCRIPTION

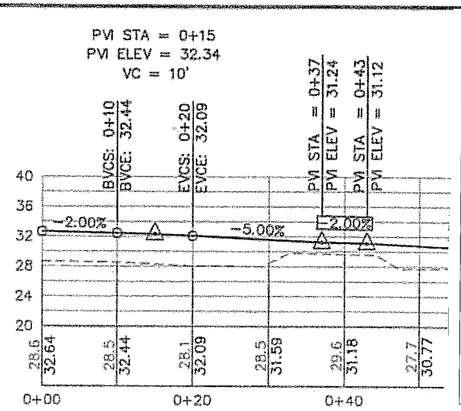
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	L1	179

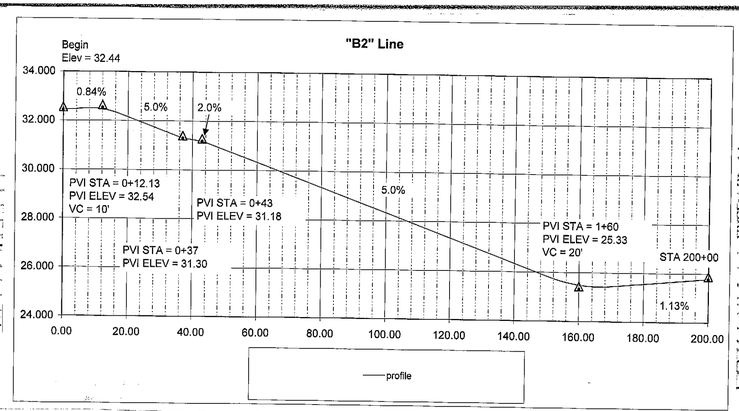


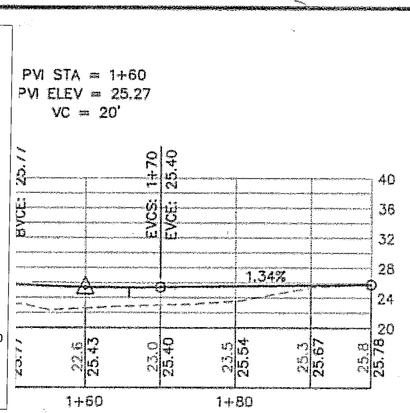
MAINTENANCE ROAD & PATH LAYOUT PLAN



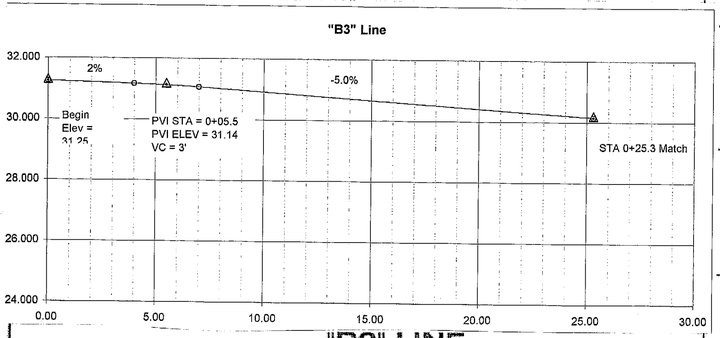
"B1" LINE MAINTENANCE RD. PROFILE







"B2" LINE PATH PROFILE



"B3" LINE PATH PROFILE

"B2" LINE CURVE DATA

		CURVE 1			
PC	0+47.24			326166.1033	659893.8739
CC				326130.7248	659875.2094
PT	0+66.73			326153.2451	659908.2674
	Delta:	27–55–17	Type:	RIGHT	
	Radius:	40.00	DOC:	143–14–22	
	Length:	19.49	Tangent:	9.94	
		CURVE 2			
PC	0+83.67			326139.2446	659917.8051
CC				326130.7995	659905.4083
PT	1+13.58			326116.0295	659908.0248
	Delta:	114–13–06	Type:	RIGHT	
	Radius:	15.00	DOC:	381–58–19	
	Length:	29.90	Tangent:	23.19	
		CURVE 3			
PC	1+41.57			326111.1472	659880.4642
CC				326125.9172	659877.8477
PT	1+50.84			326112.3662	659871.4156
	Delta:	35–26–14	Type:	RIGHT	
	Radius:	15.00	DOC:	381–58–19	
	Length:	9.28	Tangent:	4.79	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA – 49th – Chad A. Howard CE-10835 – DULY REGISTERED PROFESSIONAL ENGINEER

4-16-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_1784\L-4_Turnouts+Misc.dwg

TAB: L2 Fri, 21/Apr/06 01:55PM lrobertson

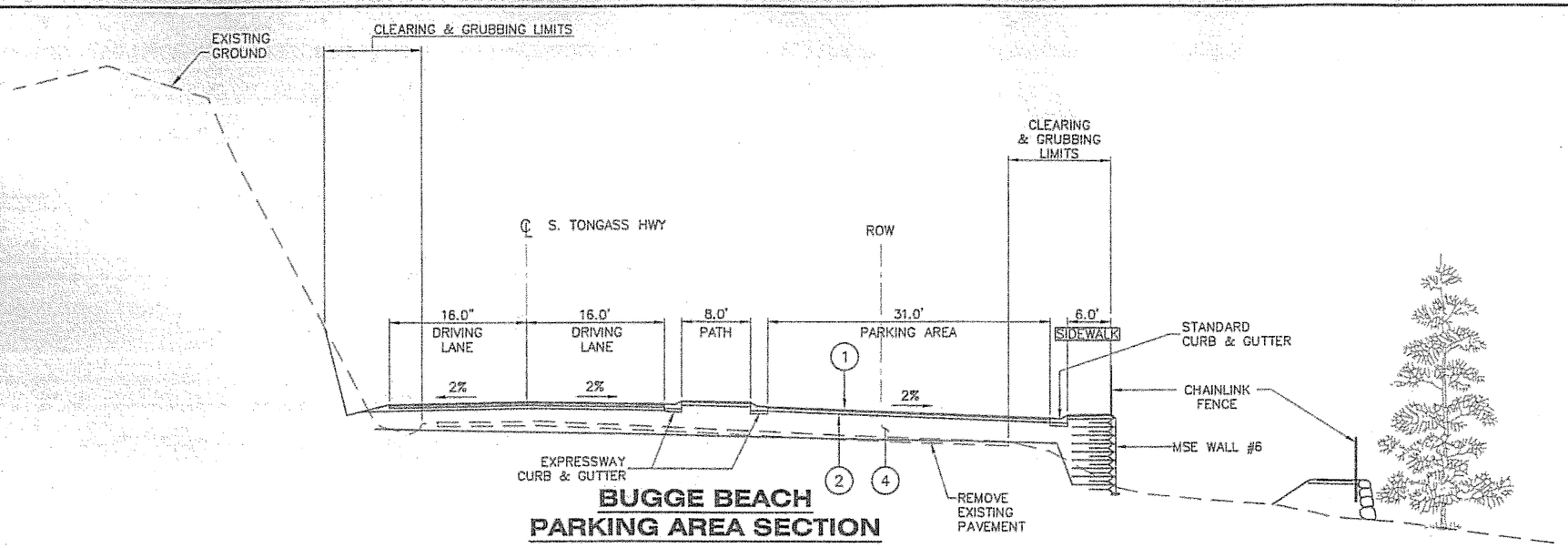
REVISIONS		
NO.	DATE	DESCRIPTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

BUGGE BEACH DETAILS

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	L2	179



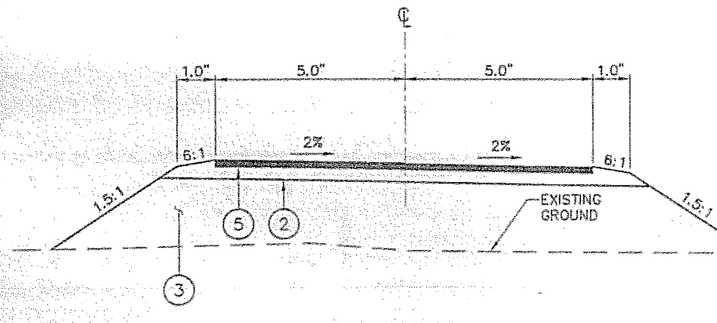
BUGGE BEACH PARKING AREA SECTION

GENERAL NOTES

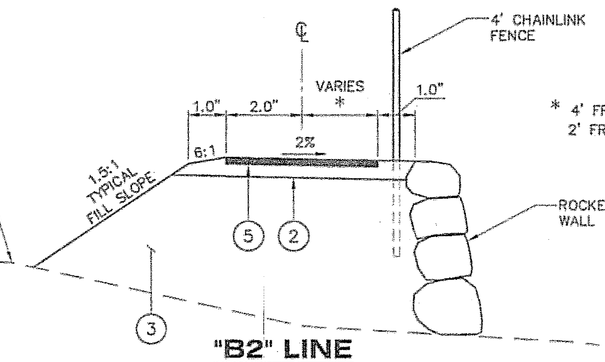
1. SEE K SHEETS FOR DETAILS OF WALL CONSTRUCTION.
2. PATH WALLS AND FENCE LOCATIONS AND AREAS ARE APPROXIMATE ONLY. FIELD REVISIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ENGINEER SHALL APPROVE ALL TREE CUTTING WITHIN THE PARK. MINIMIZE IMPACTS TO TREES AND THERE ROOT SYSTEMS.
4. CLEAR BRANCHES WITHIN 8' VERTICAL OF FINISHED PATH GRADE.
5. ALL FILL SLOPES WITHIN THE PARK SHALL RECEIVE 3" TOPSOIL AND SEEDING.
6. MATCH PROPOSED PATHS TO EXISTING PATHS AS DIRECTED BY THE ENGINEER.

ROCKERY WALL AREAS (ft2)

~~6A = 55~~
~~6B = 58~~
~~6C = 71~~
~~6D = 45~~
~~6E = 50~~
6F = ~~320.7~~



"B1" LINE TYPICAL SECTION



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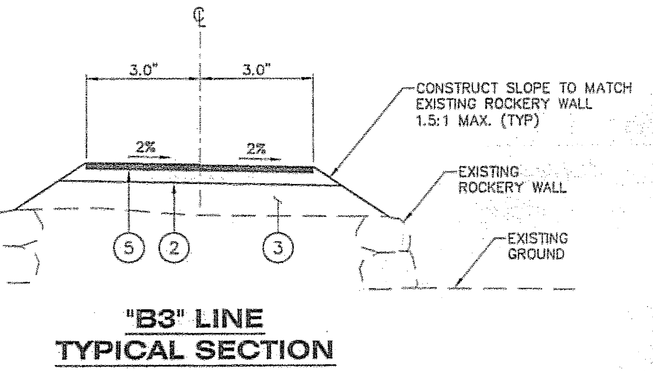

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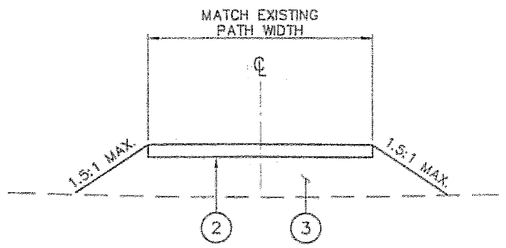
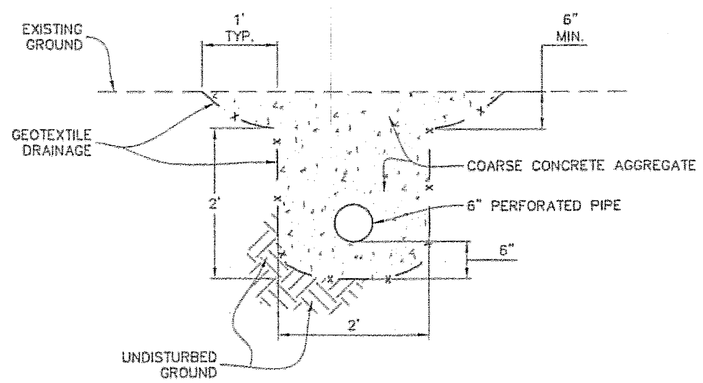


MATCH EXISTING PATH TYPICAL SECTION



STORMWATER FILTRATION TRENCH DETAIL

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-09

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. 4" SUBBASE, GRADING C
3. SELECT MATERIAL, TYPE B OR D
4. 24" SELECT MATERIAL, TYPE A
5. 2" ASPHALT SIDEWALK

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

BUGGE BEACH STAIR DETAILS

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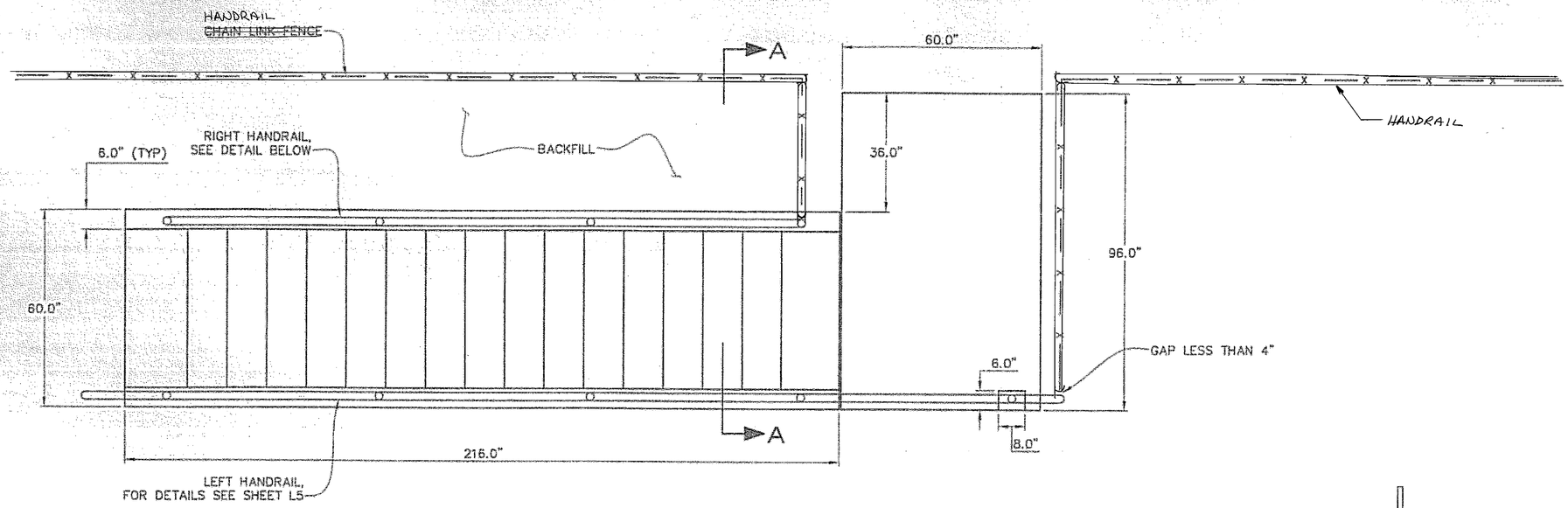
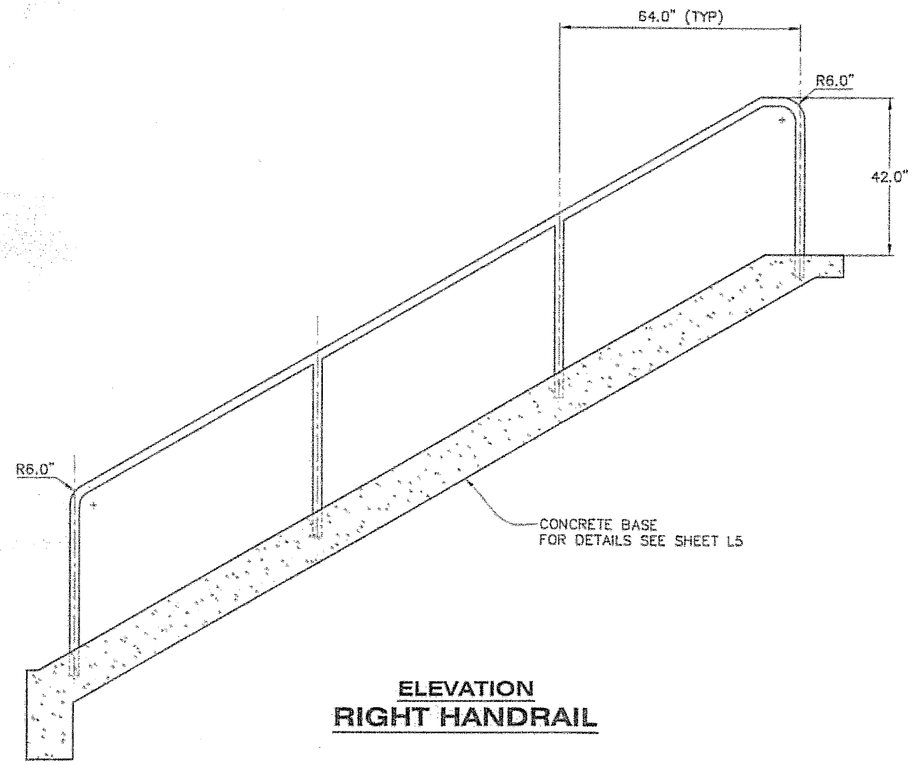
TAB: L3 Fri, 21/Apr/06 01:56PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	L3	179



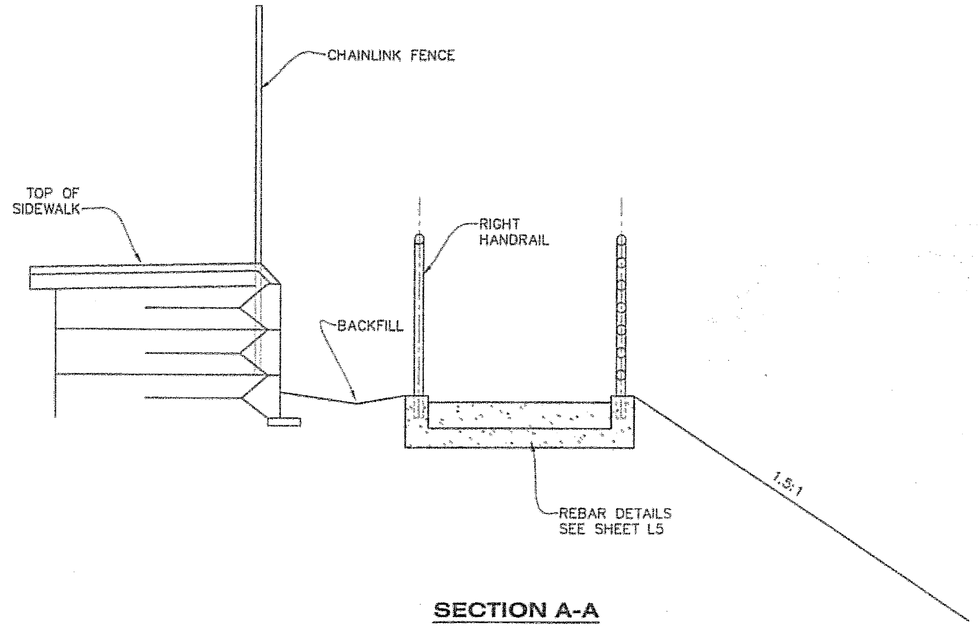
PLAN
CONCRETE STAIRS



ELEVATION
RIGHT HANDRAIL

GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH STATE OF ALASKA, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
2. ALL CONCRETE SHALL BE CLASS "A".
3. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
4. 1/2" EXPANSION JOINTS SHALL BE PLACED AT THE END OF THE STEPS WHERE STEPS ABUT PROPOSED OR EXISTING CONCRETE SIDEWALK.
5. ALL STEEL REINFORCEMENT SHALL BE NO. 4 DEFORMED BARS. SPLICES IN REINFORCING STEEL SHALL OVERLAP A MINIMUM LENGTH OF 40 DIAMETERS.
6. ALL STEEL SHALL HAVE A MINIMUM CLEAR DISTANCE OF 1 1/2" TO FACE OF CONCRETE.
7. ALL EXPANSION JOINTS SHALL BE SEALED WITH A HOT POURED ELASTIC TYPE JOINT SEAL CONFORMING WITH AASHTO DESIGNATION M 173-60.
8. 2" DIA. GALVANIZED STEEL PIPE FOR RAILING AND POSTS. ALL RAILS WILL BE HOT- DIPPED GALVANIZED AFTER FABRICATION.



SECTION A-A

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK Sheppard Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: J. KAJDAN
DRAWN BY: J.K./R.S.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

BUGGE BEACH
STAIR DETAILS

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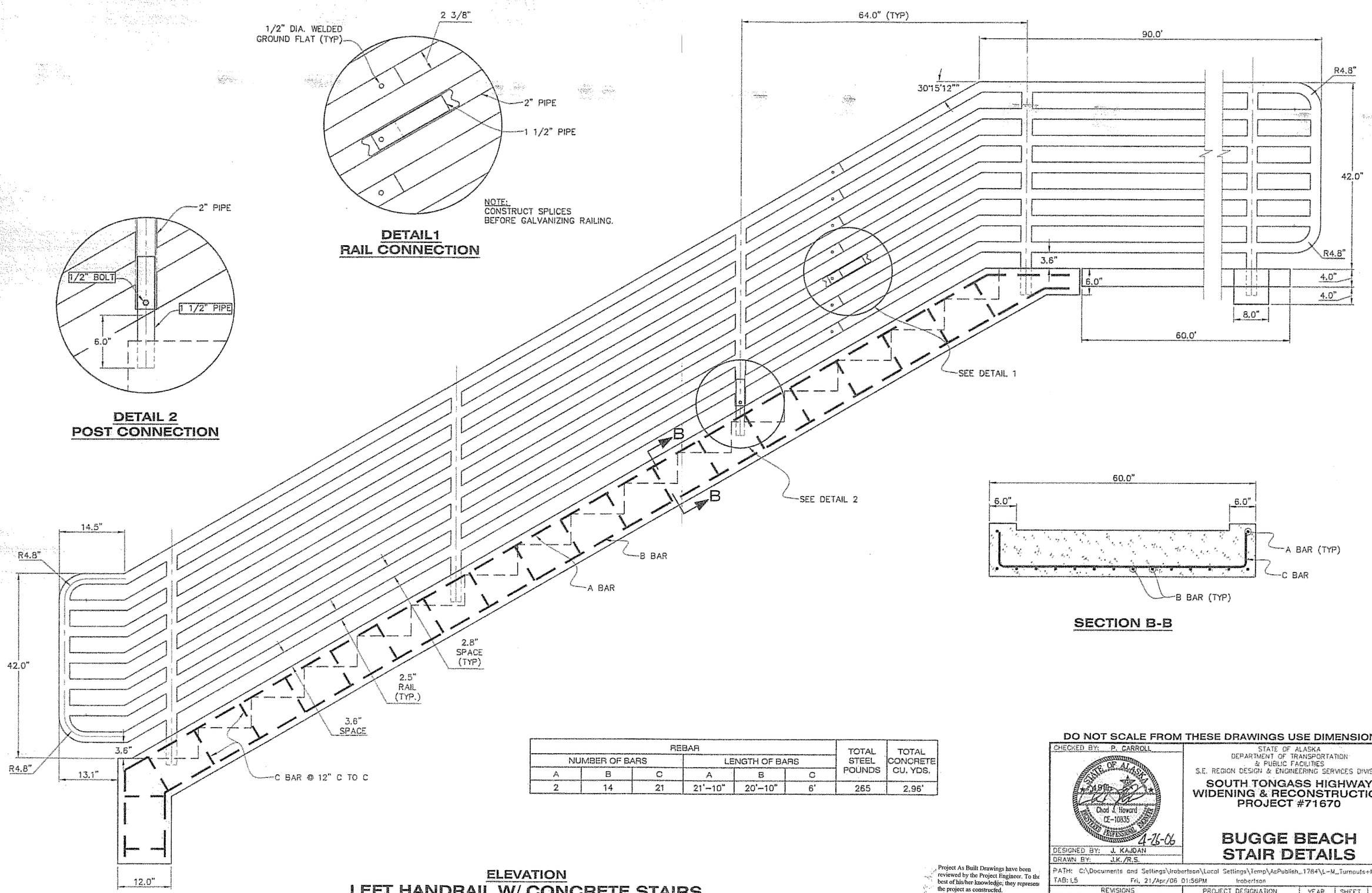
TAB: L4 Fri, 21/Apr/06 01:56PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	L4	179

NOTE:
CONSTRUCT SPLICES BEFORE GALVANIZING RAILING.

DETAIL1
RAIL CONNECTION

DETAIL 2
POST CONNECTION



ELEVATION
LEFT HANDRAIL W/ CONCRETE STAIRS

SECTION B-B

REBAR						TOTAL STEEL POUNDS	TOTAL CONCRETE CU. YDS.
NUMBER OF BARS			LENGTH OF BARS				
A	B	C	A	B	C		
2	14	21	21'–10"	20'–10"	6'	265	2.96'

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AKSheppard Date 4-07

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: J. KAJDAN
DRAWN BY: J.K./R.S.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

BUGGE BEACH STAIR DETAILS

PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_1784\L-M_Turnouts+Misc.dwg
TAB: L5 Fri, 21/Apr/06 01:56PM lrobertson

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION				
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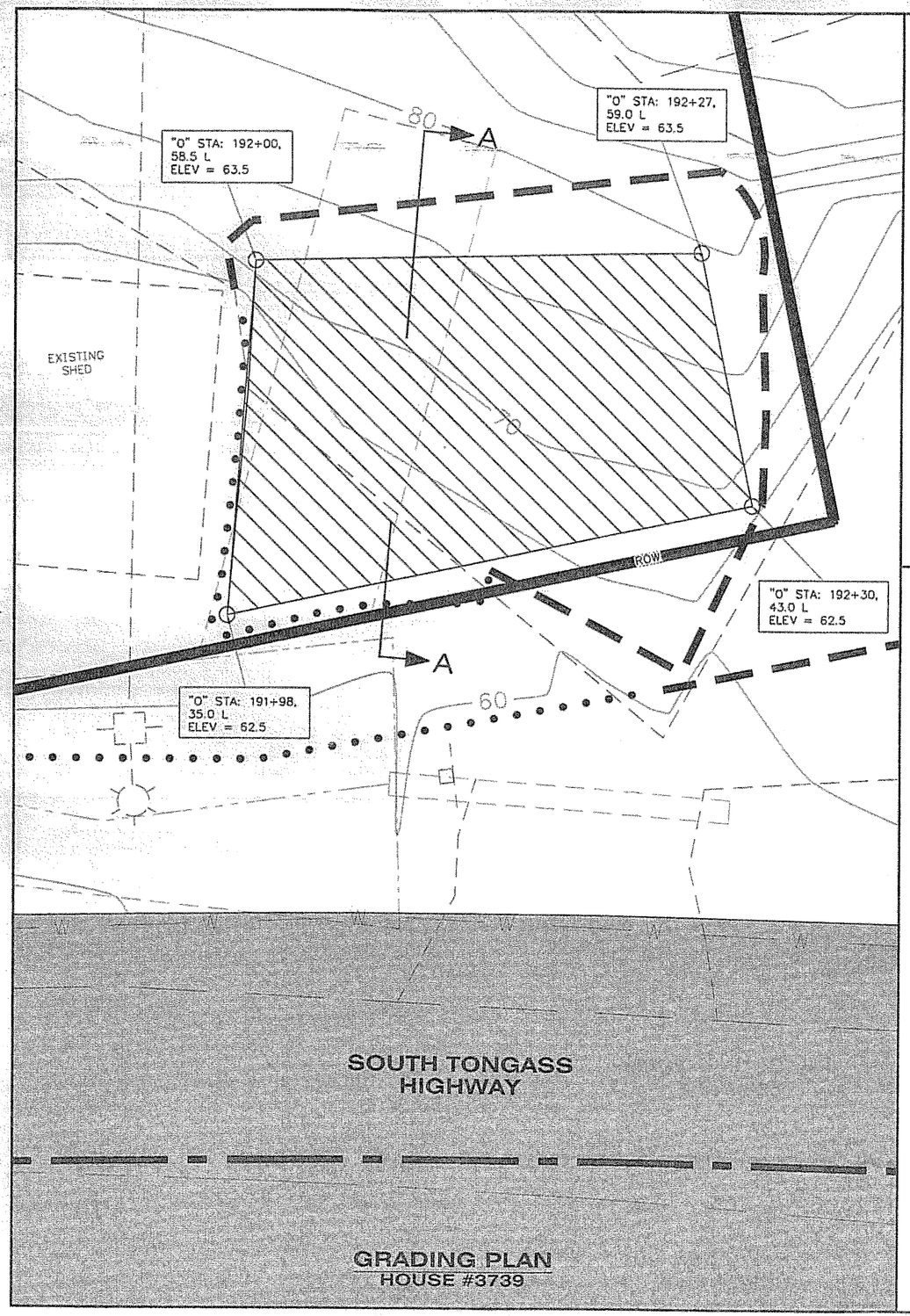
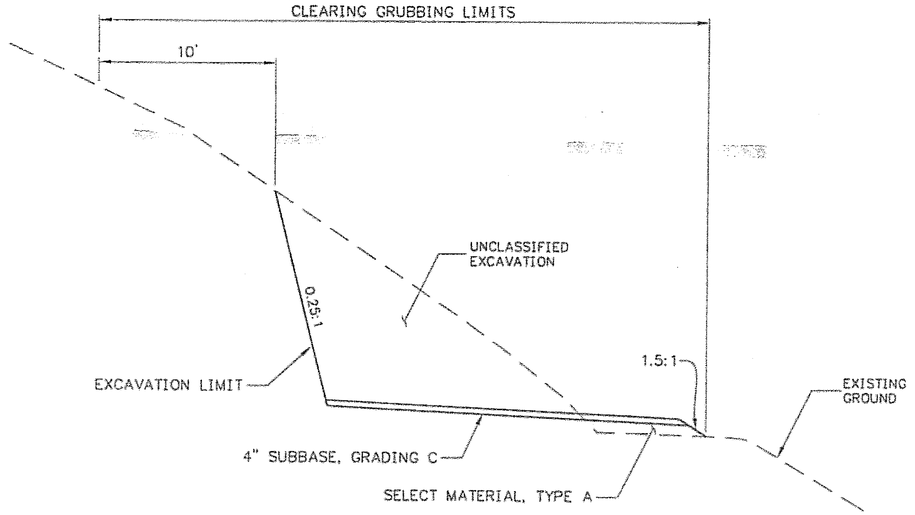


GRADING PLAN
HOUSE #3739



SECTION A-A
GRADED AREA

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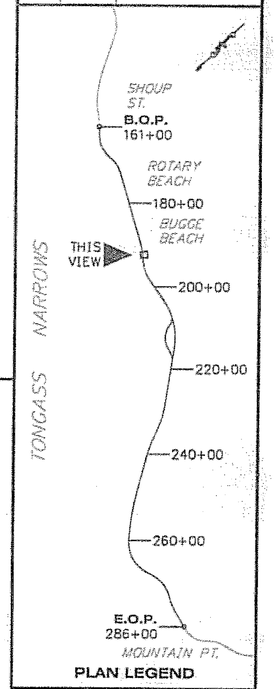
Fri, 05/May/06 11:21AM rksnyder
TAB: M1

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

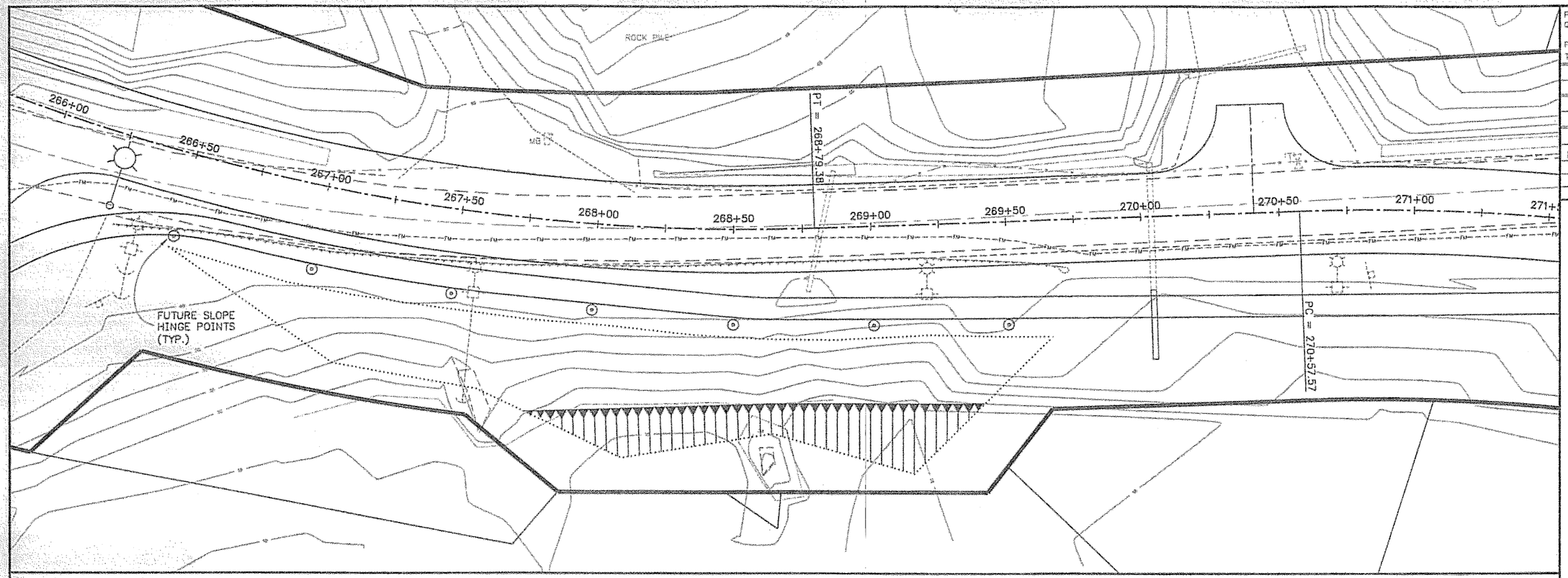
GRADING PLAN & DETAILS

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
M1	179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. _____ Date 4-20

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



FUTURE SLOPE HINGE POINT LOCATIONS

STATION: 266+50	OFFSET: 42.04 RT,	ELEV =	31.02
STATION: 267+00	OFFSET: 42.40 RT,	ELEV =	31.00
STATION: 267+50	OFFSET: 42.75 RT,	ELEV =	31.00
STATION: 268+00	OFFSET: 42.99 RT,	ELEV =	31.71
STATION: 268+50	OFFSET: 42.76 RT,	ELEV =	35.21
STATION: 269+00	OFFSET: 42.71 RT,	ELEV =	36.58
STATION: 269+50	OFFSET: 42.38 RT,	ELEV =	37.99

FUTURE SLOPE HINGE POINT LOCATIONS

STATION: 267+00	OFFSET: 31.00 RT,	ELEV =	42.40
STATION: 267+50	OFFSET: 31.00 RT,	ELEV =	42.75
STATION: 268+00	OFFSET: 31.71 RT,	ELEV =	42.99
STATION: 268+50	OFFSET: 35.21 RT,	ELEV =	42.76
STATION: 269+00	OFFSET: 36.58 RT,	ELEV =	42.71
STATION: 269+50	OFFSET: 37.99 RT,	ELEV =	42.38
STATION: 270+00	OFFSET: 39.41 RT,	ELEV =	42.00
STATION: 270+50	OFFSET: 40.82 RT,	ELEV =	41.57
STATION: 271+00	OFFSET: 40.37 RT,	ELEV =	41.70
STATION: 271+50	OFFSET: 36.85 RT,	ELEV =	42.33
STATION: 272+00	OFFSET: 33.44 RT,	ELEV =	42.90
STATION: 272+50	OFFSET: 37.88 RT,	ELEV =	42.99
STATION: 273+00	OFFSET: 32.50 RT,	ELEV =	43.02
STATION: 273+50	OFFSET: 32.50 RT,	ELEV =	42.85

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ACHOWARD Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: Q:\Klin\71670\Planset\L-M_Turnouts+Misc.dwg

Fri. 05/May/06 11:22AM rksnyder

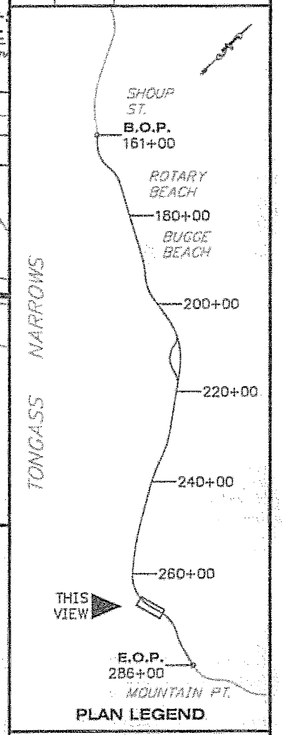
TAB: M2

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

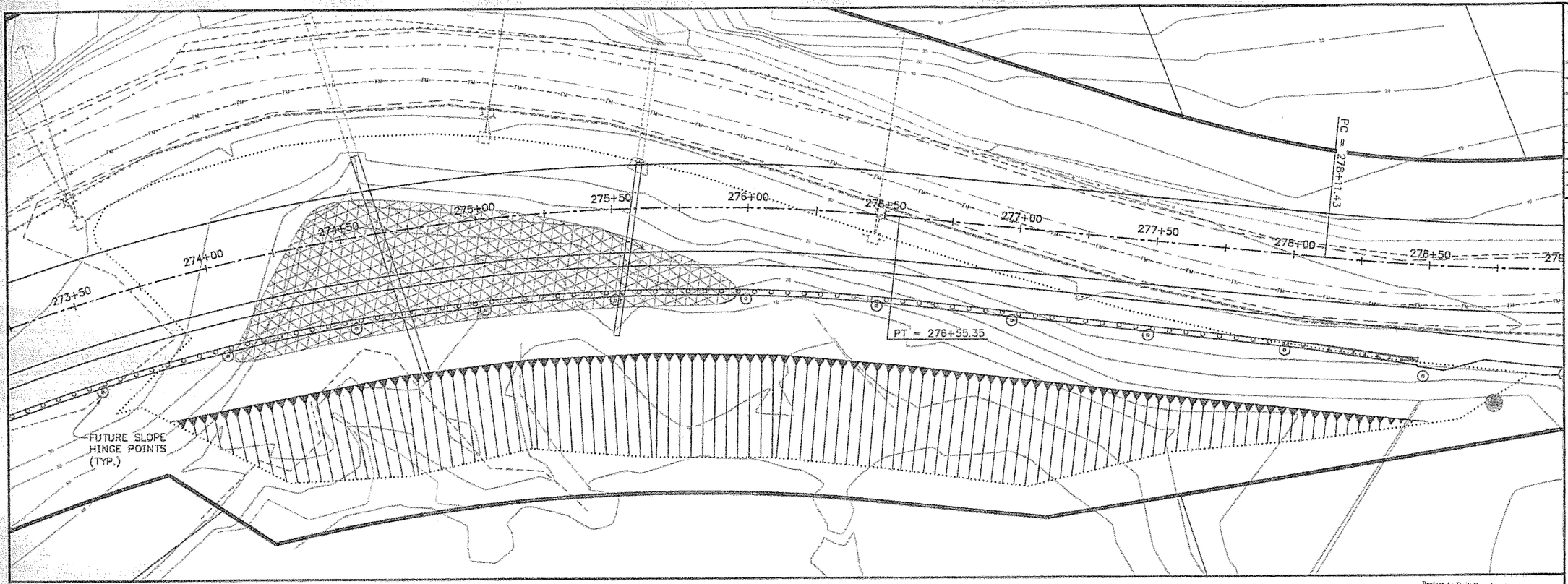
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

GRADING PLAN & DETAILS

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
M2	179



FUTURE SLOPE HINGE POINT LOCATIONS			
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STATION: 274+00	OFFSET: 42.12 RT,	ELEV = 33.26
STATION: 274+50	OFFSET: 41.83 RT,	ELEV = 33.26
STATION: 275+00	OFFSET: 41.50 RT,	ELEV = 33.26
STATION: 275+50	OFFSET: 41.10 RT,	ELEV = 33.26
STATION: 276+00	OFFSET: 40.66 RT,	ELEV = 33.26
STATION: 276+50	OFFSET: 40.19 RT,	ELEV = 33.26
STATION: 277+00	OFFSET: 33.82 RT,	ELEV = 39.90
STATION: 277+50	OFFSET: 34.54 RT,	ELEV = 39.53
STATION: 278+00	OFFSET: 35.25 RT,	ELEV = 39.10
STATION: 278+50	OFFSET: 40.92 RT,	ELEV = 38.17
STATION: 279+00	OFFSET: 38.67 RT,	ELEV = 37.42

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEPARD Date 4-30

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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Fri, 05/May/06 11:22AM rksnyder

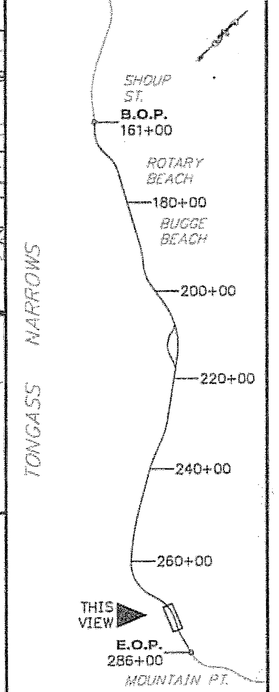
TAB: M3

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
Chad J. Howard
CE-10835
5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

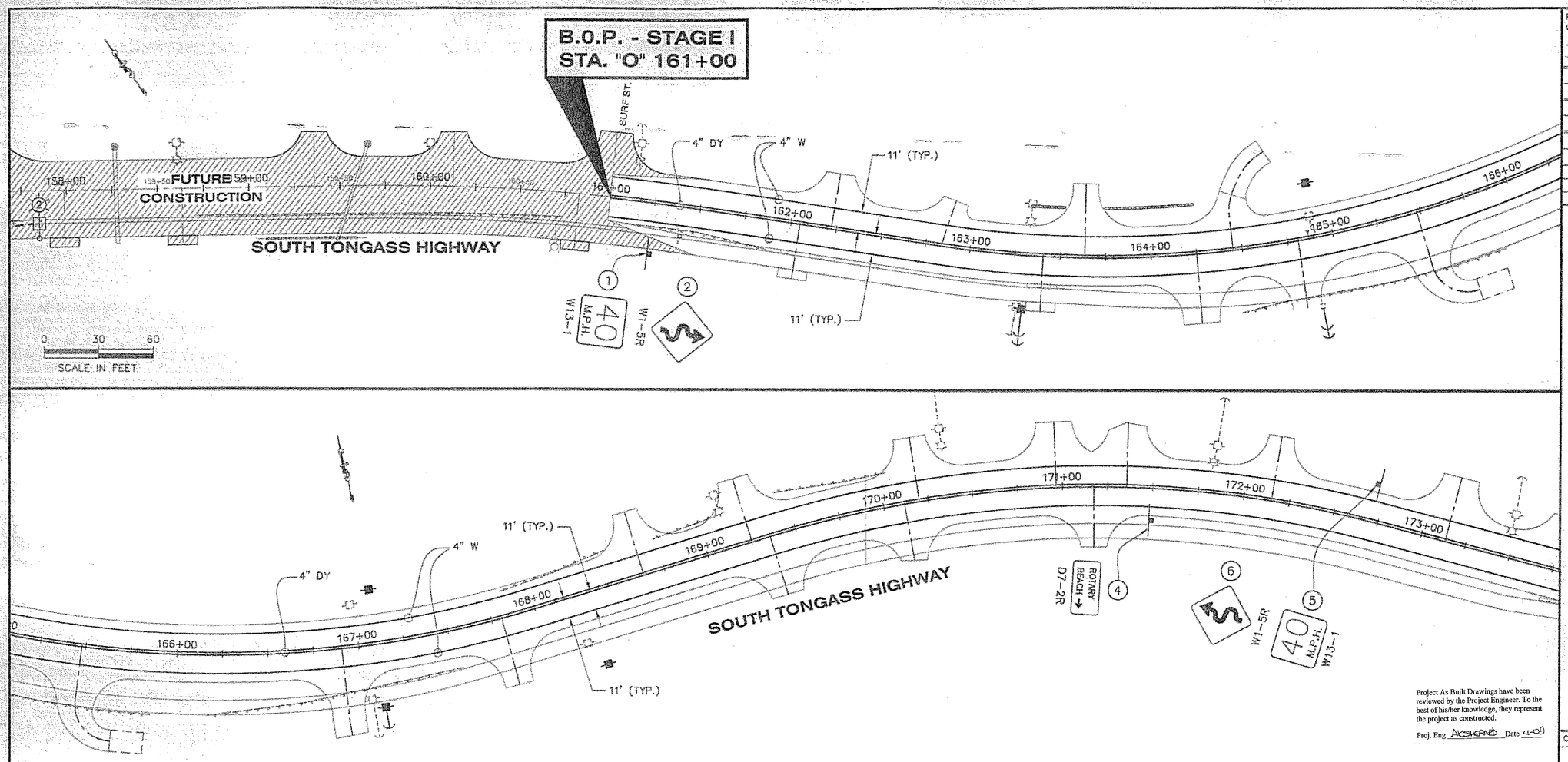
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

GRADING PLAN & DETAILS

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
M3	179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ACKNOWLEDGED Date 4-09

PATH: Q:\Ktn\71670\Planset\P_SignStripe.dwg

Tue, 25/Apr/06 02:08PM lrobertson

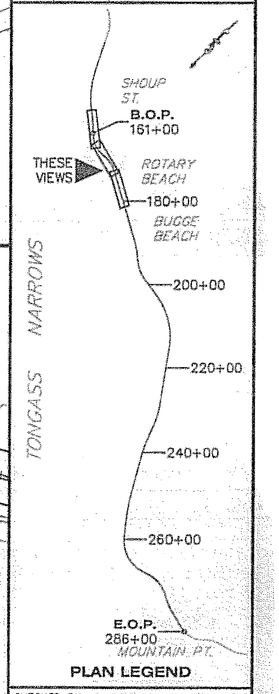
TAB: P1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No:	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA 49th CARLYN HUDSON MOREHOUSE CE-10691 REGISTERED PROFESSIONAL ENGINEER 5-2-06

DESIGNED BY: D. FAGNANT

DRAWN BY: D. STEVENS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

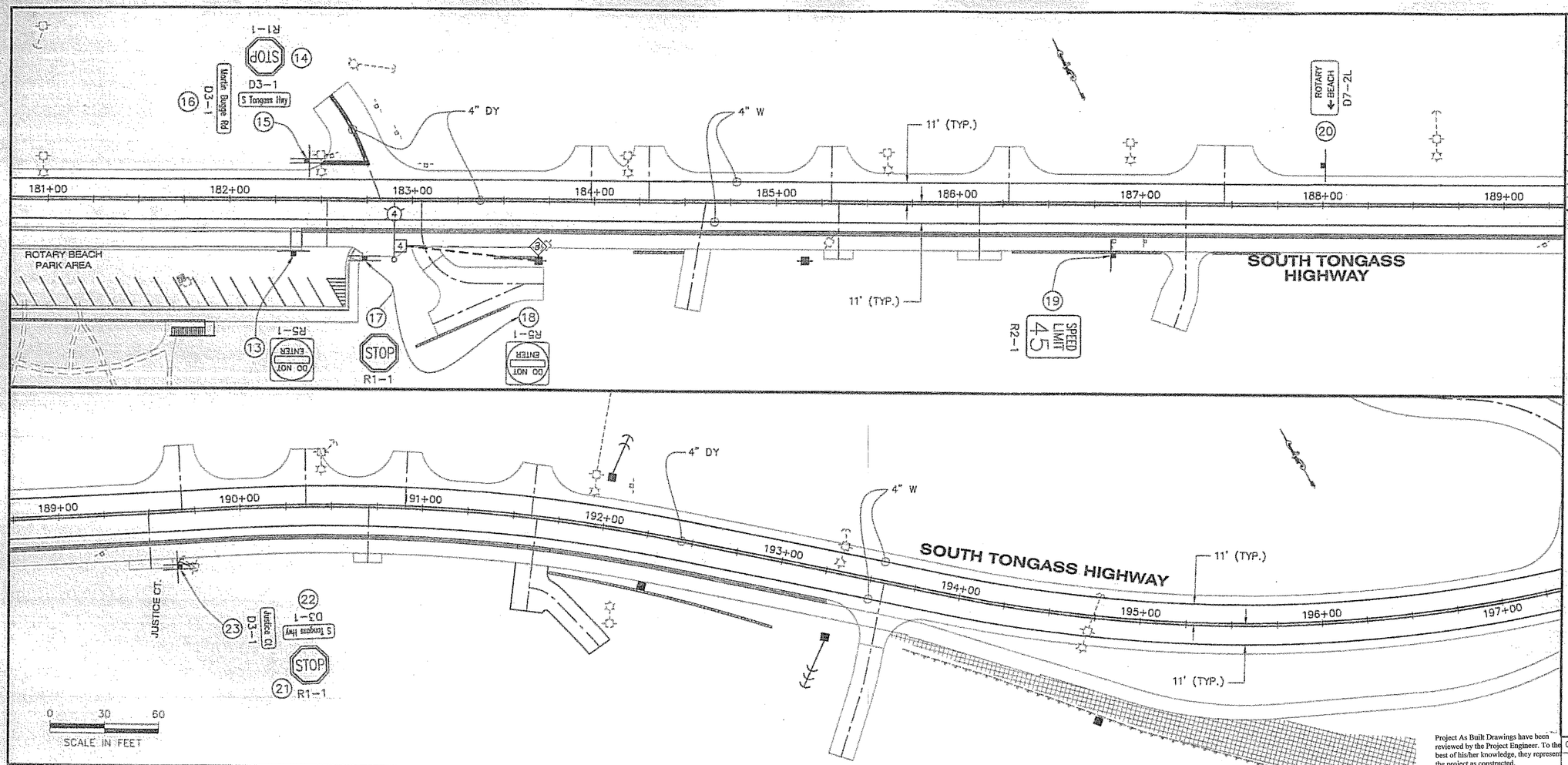
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SIGNING, LIGHTING & STRIPING LAYOUT PLAN

PROJECT DESIGNATION

MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
P1	179



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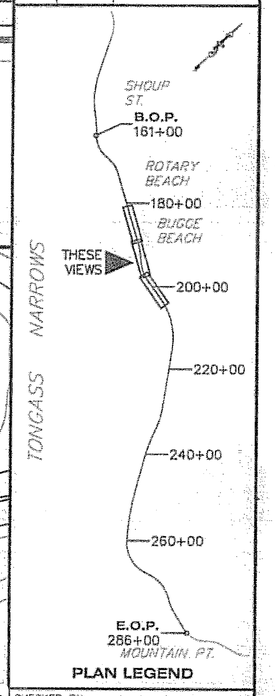
Tue, 25/Apr/06 02:08PM Irobertson

TAB: P2

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

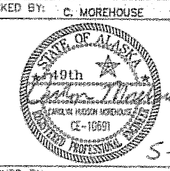


PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SWEARD Date 4-09

CHECKED BY: C. MOREHOUSE



5-5-06

DESIGNED BY: D. FAGNANT

DRAWN BY: D. STEVENS

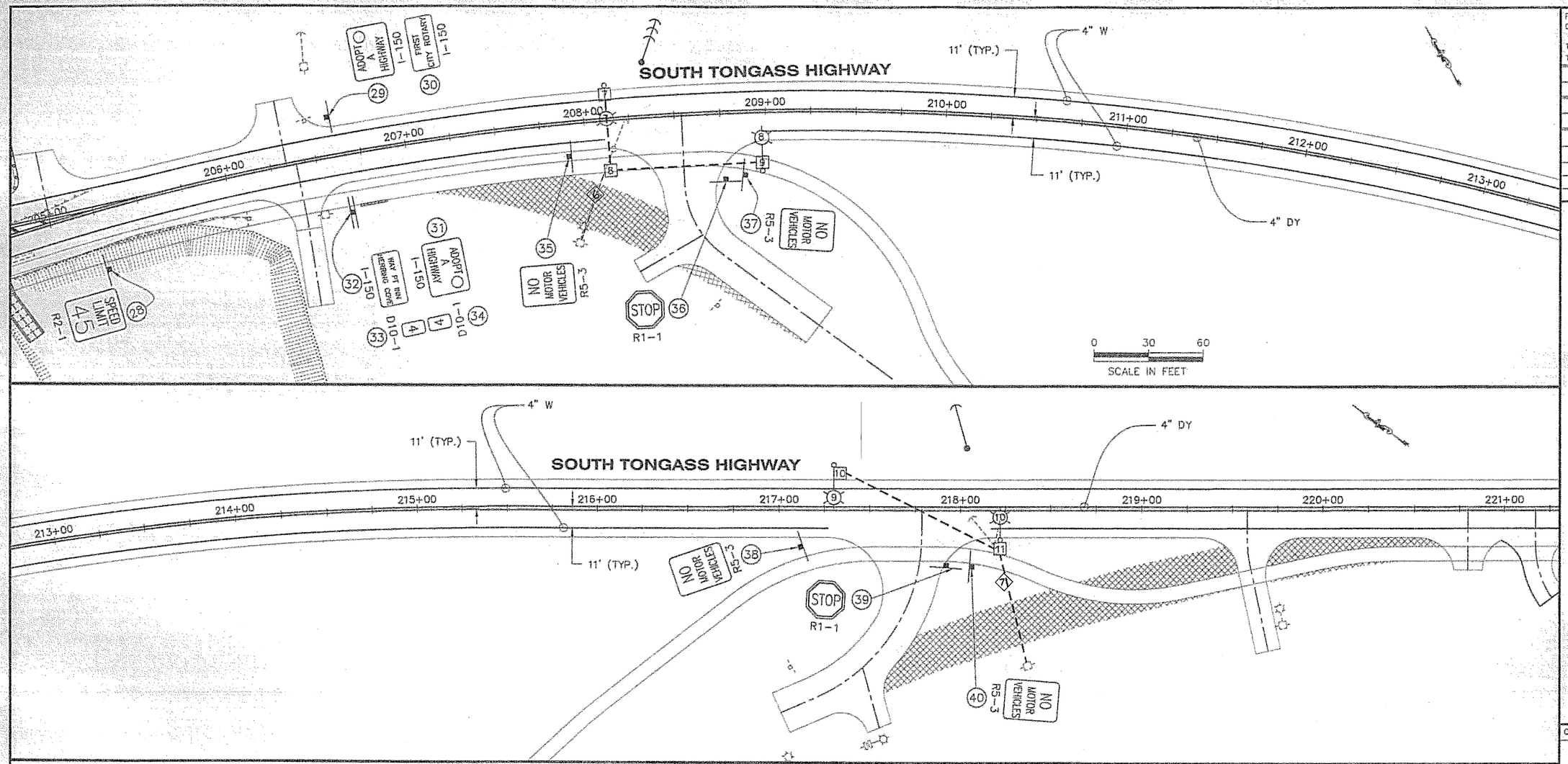
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

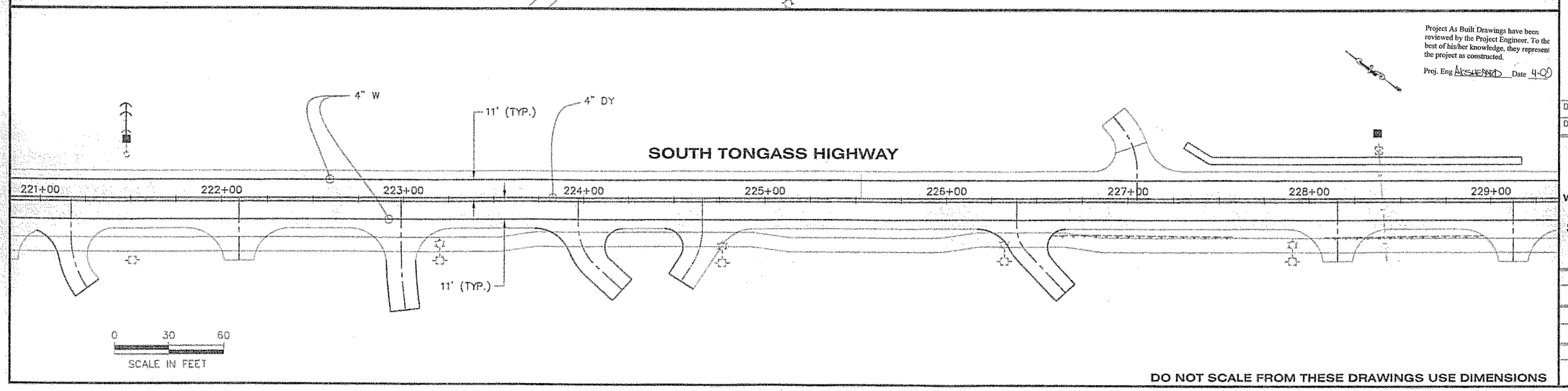
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

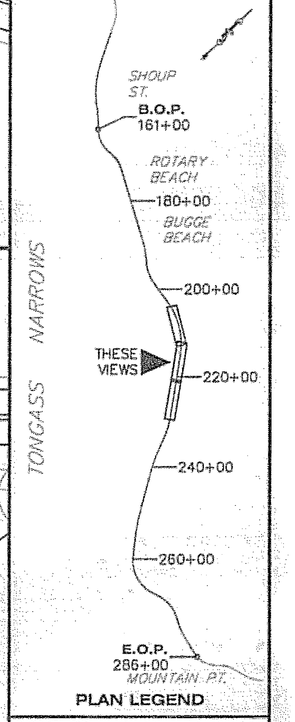
SIGNING, LIGHTING & STRIPING LAYOUT PLAN

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
P2	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS







PLAN LEGEND

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Tue, 25/Apr/06 02:09PM lrobertson
TAB: P3

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA
49th
CAROLYN HUGEN MOREHOUSE
CE-10691
REGISTERED PROFESSIONAL ENGINEER
5/5/06

DESIGNED BY: D. FAGNANT

DRAWN BY: D. STEVENS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

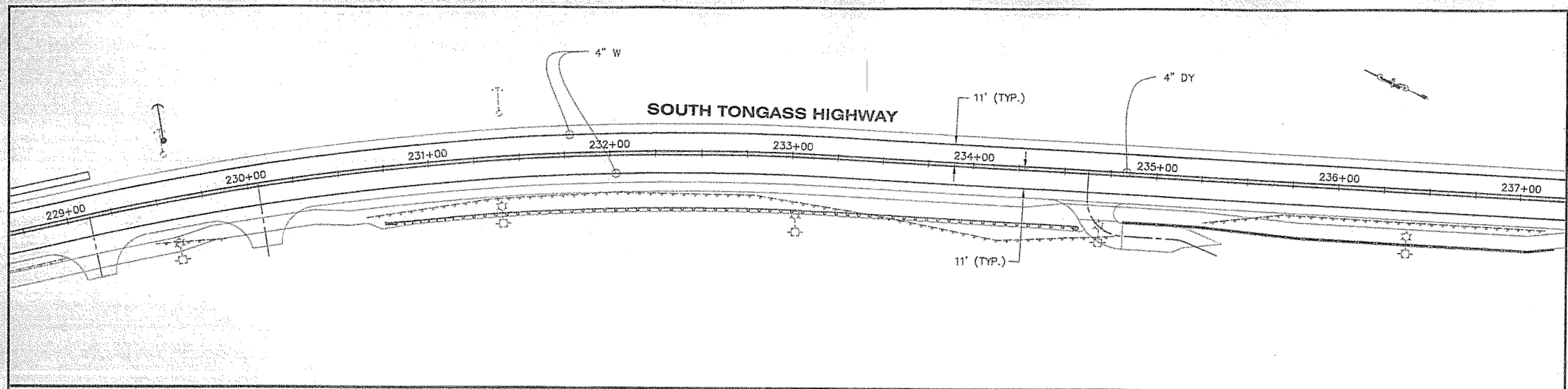
SIGNING, LIGHTING & STRIPING LAYOUT PLAN

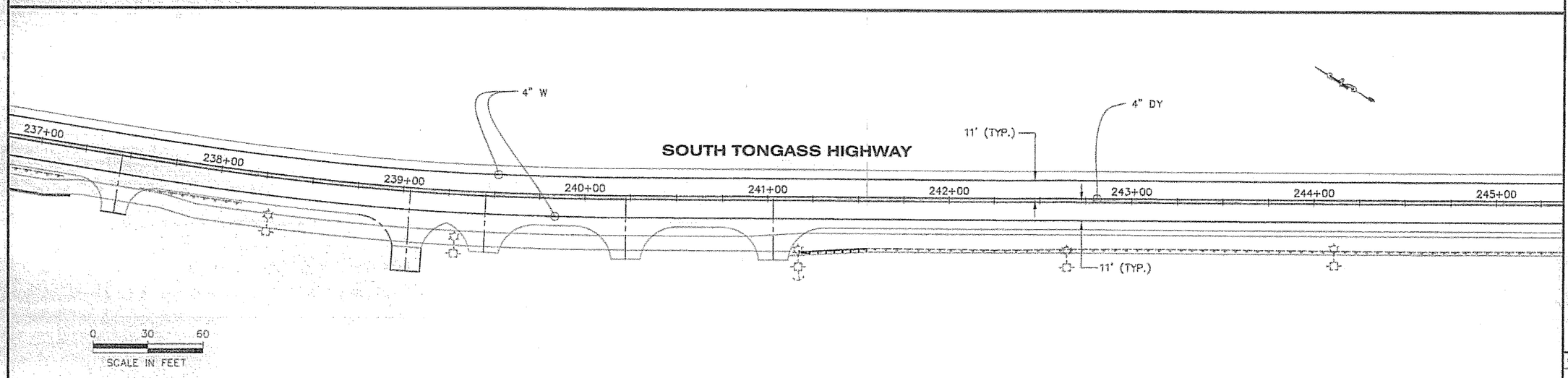
PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
P3	179

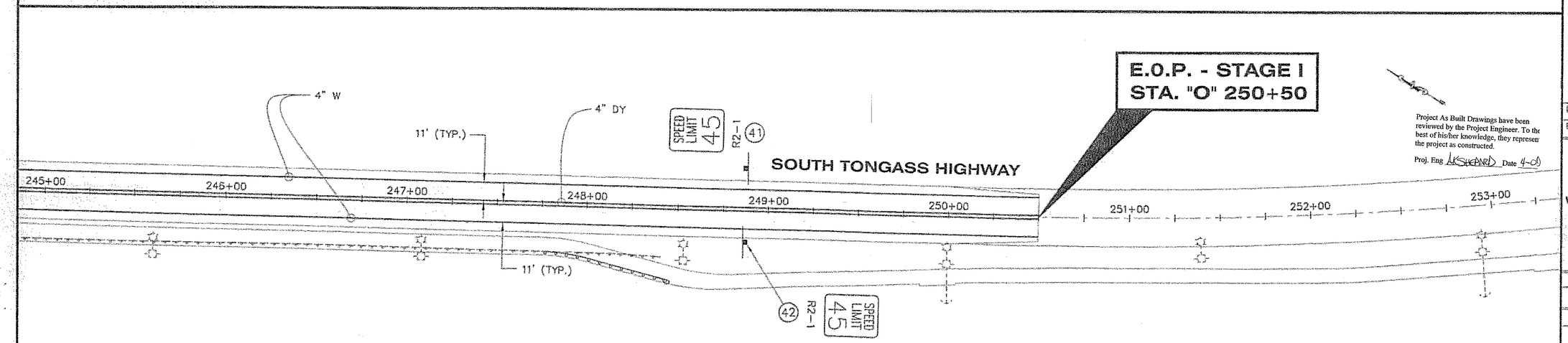
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHENAD Date 4-00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



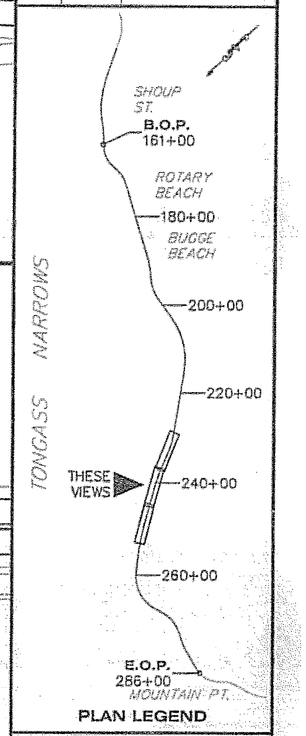




Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. J.K. SHEPARD Date 4-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN LEGEND

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Tue, 25/Apr/06 02:09PM lrobertson
TAB: P4

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA 49th
CAROLYN HUDSON MOREHOUSE
CE-10691
REGISTERED PROFESSIONAL ENGINEER
5/5/06

DESIGNED BY: D. FAGNANT

DRAWN BY: D. STEVENS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SIGNING, LIGHTING & STRIPING LAYOUT PLAN

PROJECT DESIGNATION
MGS-STP-0902(20)

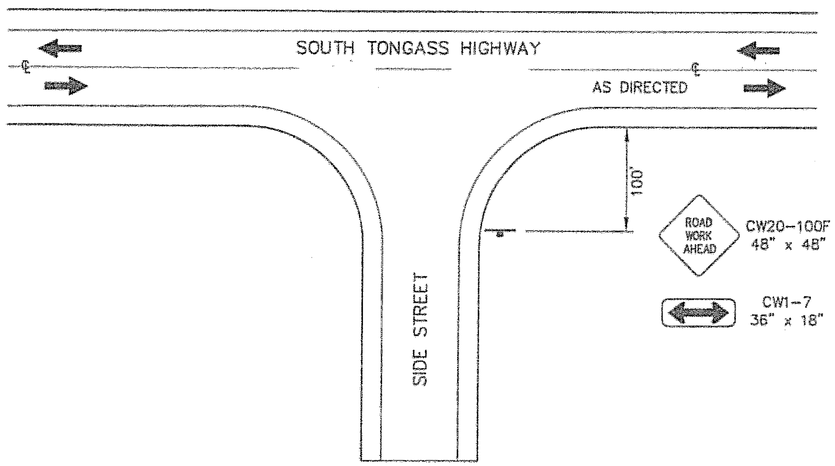
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
P4	179

Traffic Control Notes:

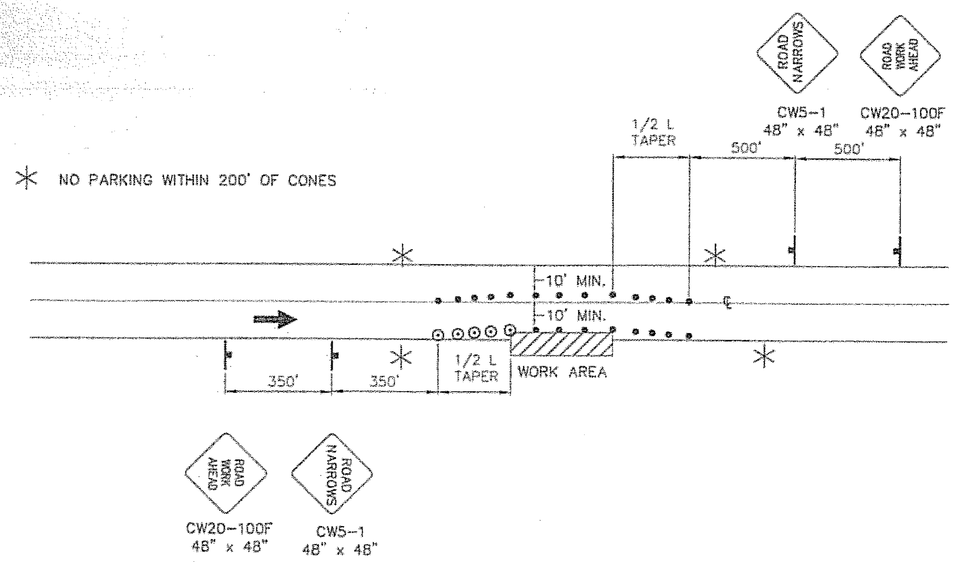
1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
2. A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES, THROUGH ALL WORK AREAS.
3. TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS AND DURING NON-WORKING HOURS.
4. TRAFFIC LANES SHALL BE A MINIMUM OF 10' WIDE.
5. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
6. TEMPORARY PAVEMENT MARKINGS WILL BE REQUIRED AS DESCRIBED IN SECTION 643-3.09 OF THE SPECIFICATIONS.
7. CHANNELIZATION DEVICES WILL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL IF USED AT NIGHT.
8. THE CONTRACTOR SHALL GIVE 24 HOURS ADVANCE NOTICE BEFORE WORKING ON DRIVEWAYS.
9. THE CONTRACTOR SHALL KEEP THE PUBLIC INFORMED OF HIS CONSTRUCTION ACTIVITIES THROUGH THE USE OF THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO, THE ONSET OF WORK, GRINDING, PAVING, AND CHANGES IN THE LANE CONFIGURATIONS.
10. WORK ZONE DOUBLE TRAFFIC FINE SIGNS SHALL BE USED AS DIRECTED BY THE ENGINEER AND PER STD. DWG. C-04.12.
11. THE CONTRACTOR SHALL PATCH ALL BASE RECONSTRUCTION AREAS WITH CRUSHED ASPHALT IMMEDIATELY AFTER FINISHING WORK IN THESE AREAS. THE CRUSHED ASPHALT IN THESE AREAS SHALL BE MAINTAINED UNTIL THE PAVEMENT IS RECYCLED AND MIXED WITH EMULSION.
12. ACCESS TO HOMES AND BUSINESSES WILL BE KEPT OPEN AT ALL TIMES. WORK ON ACCESS TO ANY HOME OR BUSINESS THAT HAS ONLY ONE ACCESS, WILL BE DONE WITH HALF WIDTH CONSTRUCTION, AND BE CONTROLLED BY A FLAGGER.
13. WARNING LIGHTS SHALL BE USED ON ALL CHANNELIZING DEVICES PLACED ALONG OR AROUND ROADWAY HAZARDS AS DIRECTED BY THE ENGINEER.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng A.K.SWEARD Date 4-09



Permanent Construction Signing For Side Streets



Roadway Encroachment

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

LEGEND

- ..... SIGN
- ..... CONE
- ..... DRUM
- ..... TYPE III BARRICADE
- ..... FLAGGING STATION

FORMULAS FOR L

40 MPH OR LESS $L = \frac{WS^2}{60}$

45 MPH OR GREATER $L = WS$

WHERE

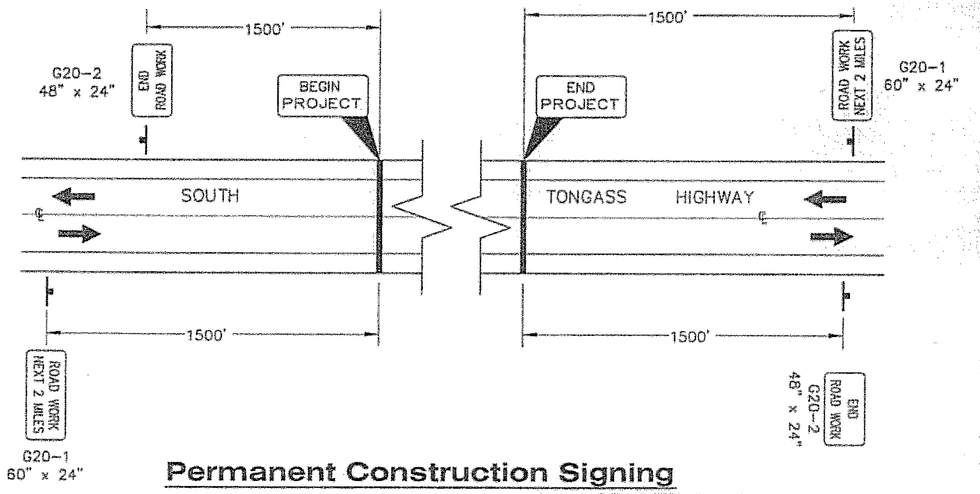
L = TAPER LENGTH

W = WIDTH OF OFFSET

S = POSTED SPEED LIMIT

TCP TABLE SETUP

SPEED (MPH)	BUFFER/ LENGTH (ft.)	CONE/DRUM SPACING (ft.)
25	155	25
30	200	30
35	250	35
40	305	40
45	360	45
50	425	50
55	495	55
60	570	60
65	645	65



Permanent Construction Signing

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA
49th
CARLYN REGION WORKFORCE ENGINEER
CE-10691
REGISTERED PROFESSIONAL ENGINEER
5/6/09

DESIGNED BY: R. PURVES

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

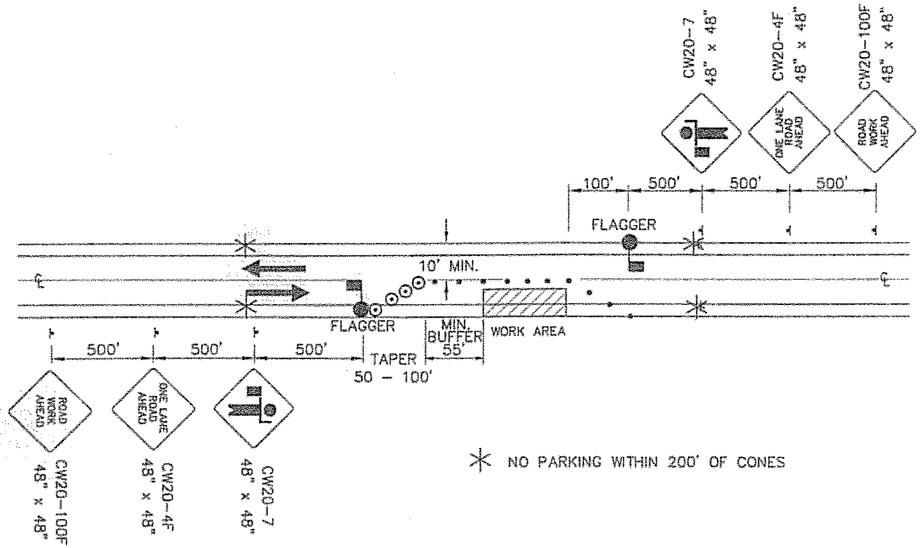
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TRAFFIC CONTROL PLAN

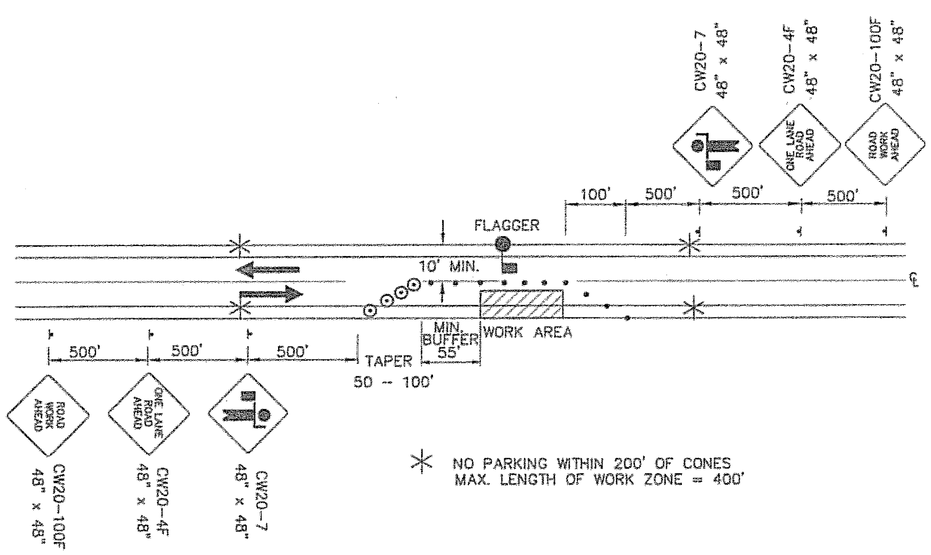
PATH: Q:\Ktn\71670\Plansel\S_TCP.dwg

TAB: S1 Fri, 21/Apr/06 02:35PM trobertson

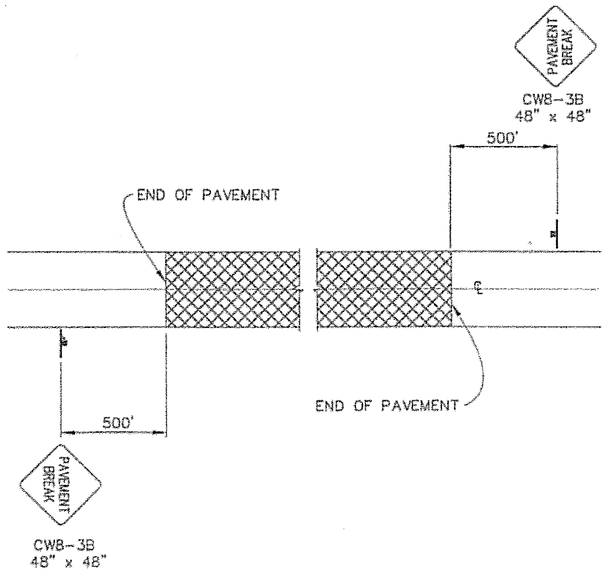
REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	S1	179



Two Lane Road - Single Lane Closure
Double Flagger



Two Lane Road - Single Lane Closure
Single Flagger



Signing For Unpaved Area

LEGEND

- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION

FORMULAS FOR L

40 MPH OR LESS $L = \frac{WS^2}{60}$

45 MPH OR GREATER $L = WS$

WHERE

L = TAPER LENGTH

W = WIDTH OF OFFSET

S = POSTED SPEED LIMIT

TCP TABLE SETUP

SPEED (MPH)	BUFFER/ LENGTH (ft.)	CONE/DRUM SPACING (ft.)
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30	200	30
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40	305	40
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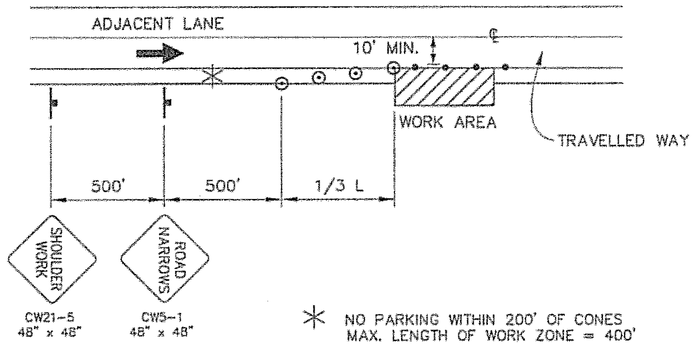
55	495	55
60	570	60
65	645	65



Shoulder Work

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng _____ Date 5-09

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA
CARL MORGAN MOREHOUSE
CC-10691
REGISTERED PROFESSIONAL ENGINEER
5/6/06

DESIGNED BY: R. PURVES

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

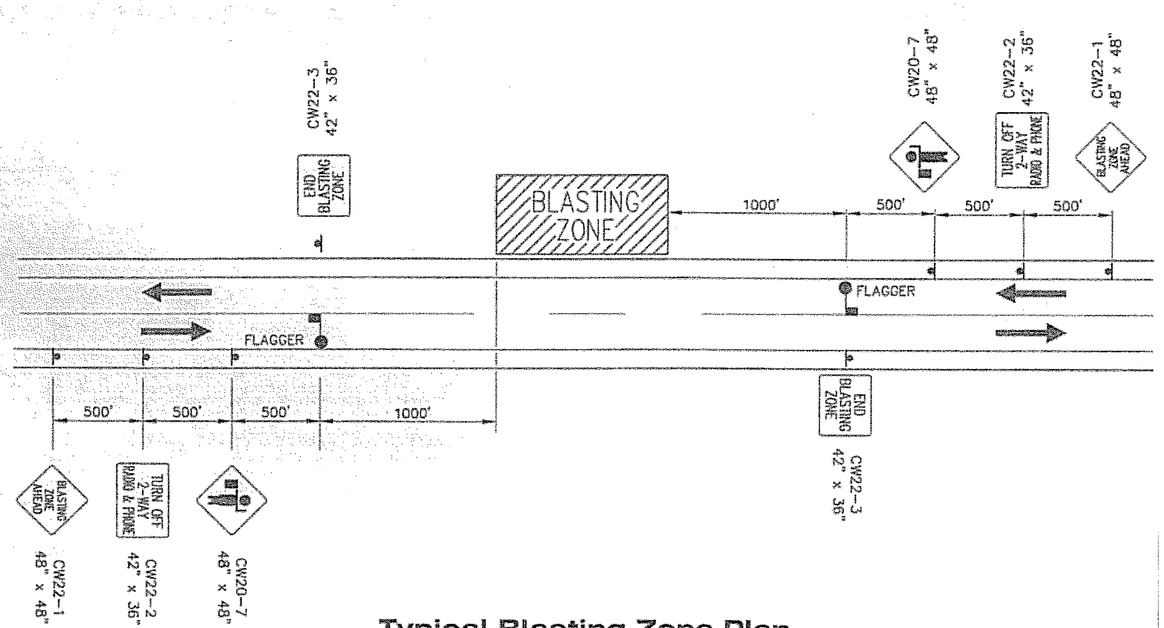
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TRAFFIC CONTROL PLAN

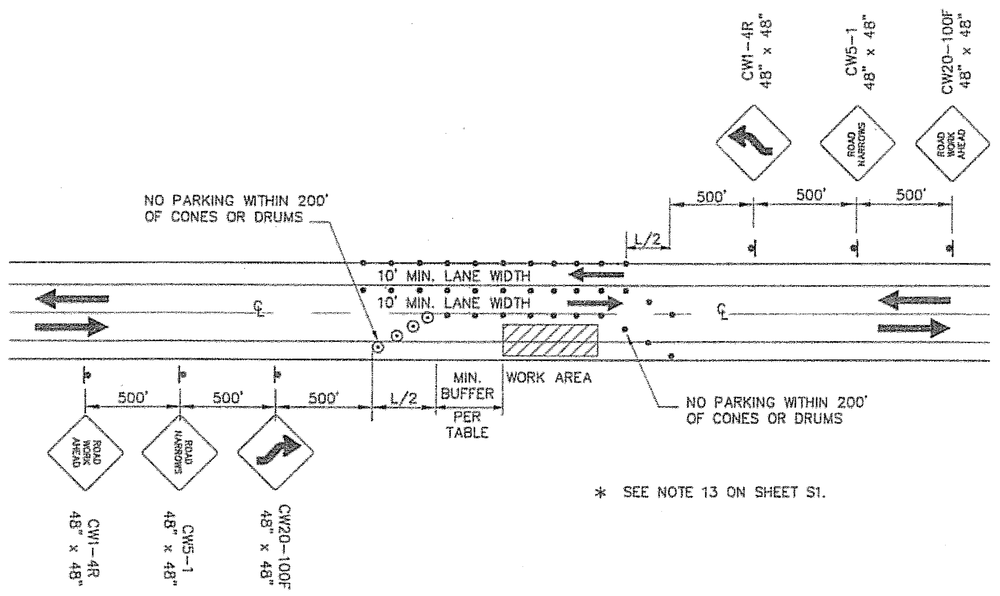
PATH: Q:\Ktn\71670\Planset\S_TCP.dwg
TAB: S2 Fri, 21/Apr/06 02:39PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	S2	179



Typical Blasting Zone Plan



* SEE NOTE 13 ON SHEET S1.

Two-Way Traffic Plan

LEGEND

- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION

FORMULAS FOR L

40 MPH OR LESS $L = \frac{WS^2}{60}$

45 MPH OR GREATER $L = WS$

WHERE

L = TAPER LENGTH

W = WIDTH OF OFFSET

S = POSTED SPEED LIMIT

TCP TABLE SETUP

SPEED (MPH)	BUFFER/ LENGTH (ft.)	CONE/DRUM SPACING (ft.)
25	155	25
30	200	30
35	250	35
40	305	40
45	360	45
50	425	50
55	495	55
60	570	60
65	645	65

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng [illegible] Date 11-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. MOREHOUSE

STATE OF ALASKA · 49th · CAROLYN HUDSON MOREHOUSE · CE-10691 · REGISTERED PROFESSIONAL ENGINEER

5/4/06

DESIGNED BY: R. PURVES

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TRAFFIC CONTROL PLAN

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REVISIONS NO.	DATE	DESCRIPTION

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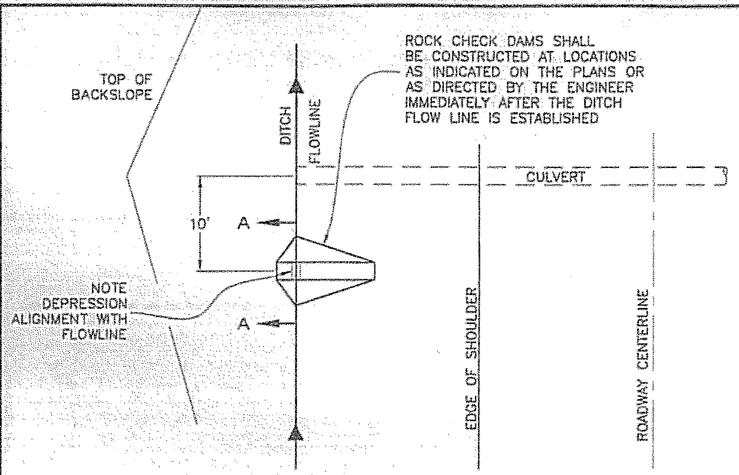
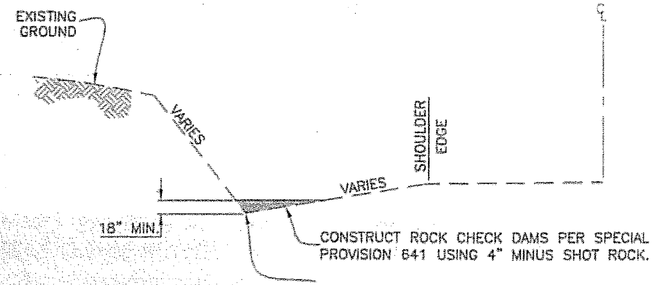
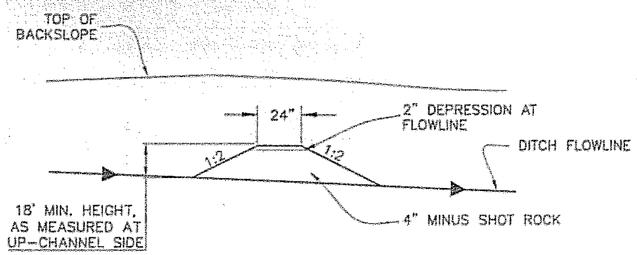


Plan



Elevation



Section A-A

TEMPORARY CHECK DAM DETAILS

TEMPORARY CHECK DAM NOTES:

1. INSTALL EROSION AND SEDIMENT CONTROL DEVICES FOR EARTH DISTURBING ACTIVITIES.
2. MAINTAIN DEVICES. MONITOR DAILY. EXCAVATE CHECK DAMS WHEN 4" OR MORE SEDIMENT.
3. IF INSPECTION REVEALS WATER IS DISCHARGING BEYOND THE PROJECT WORK LIMITS, IMMEDIATELY IMPLEMENT CORRECTIVE ACTION. ADDITIONAL CHECK DAMS MAY BE REQUIRED.
4. STABILIZE DISTURBED GROUND AS SOON AS POSSIBLE. UNSTABILIZED SURFACES MUST BE TEMPORARILY STABILIZED WITH SEEDING OR OTHER EFFECTIVE MEASURES. MAINTAIN EROSION AND SEDIMENT CONTROL UNTIL PROJECT WORK AREAS ARE GRADED AND SEEDED AREAS HAVE ACHIEVED 70% VEGETATIVE COVER.
5. REFER TO PLAN SHEETS FOR LOCATION OF CHECK DAMS.

EROSION AND SEDIMENT CONTROL NOTES:

1. REFER TO APPENDIX B OF THE CONTRACT DOCUMENTS FOR THE ENVIRONMENTAL COMMITMENTS, PERMITS, AND EROSION AND SEDIMENT CONTROL PLAN.
2. SEE SECTION 203 FOR REQUIREMENTS FOR CONTROL OF INVASIVE PLANTS.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Engr AK SHEMAN Date 4-09

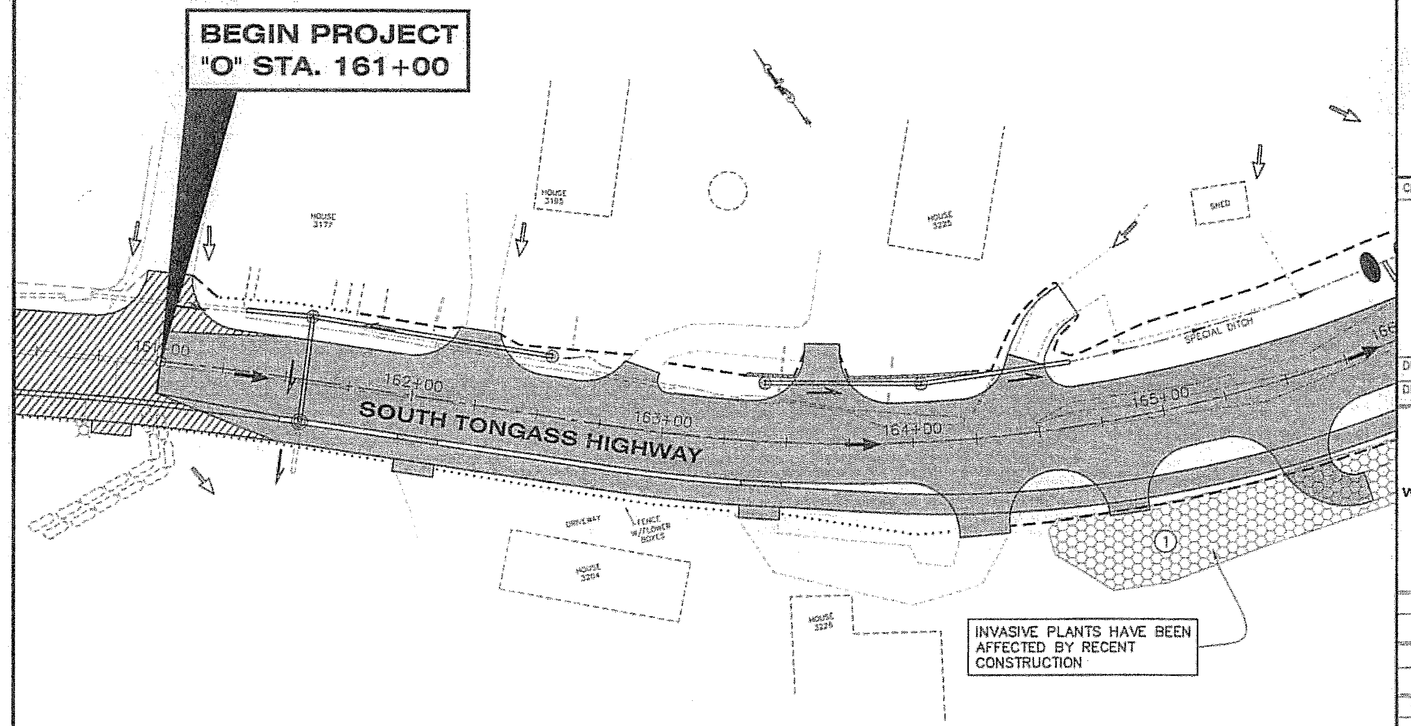
INVASIVE PLANTS BY SPECIES

Site No.	Begin Station	End Station	Area (ft2)	Percent Cover	Cover Class	Remarks
REED CANARY GRASS						
1	164+50	166+50	3,000	20	MEDIUM	NO ACTION, INVASIVES ON PRIVATE PROPERTY
total			*3,000*			
OXEYE DAISY						
1	164+50	166+50	3,000	5	LOW	NO ACTION, PRIVATE PROPERTY
total			*3,000*			
JAPANESE KNOT WEED						
1	164+50	166+50	3,000	70	HIGH	NO ACTION PRIVATE PROPERTY from edge of guardrail down to beach
2	265+00	266+00	800	70	HIGH	INVASIVES REMOVED TO R.O.W.
3	281+00	283+00	300	100	HIGH	Mt. Point boat ramp/harbor NONE FOUND
total			*4,100*			
ORANGE HAWKWEED						
1	164+50		800	2	LOW	NO ACTION PRIVATE PROP
total			*800*			

LEGEND

- SF—SF SILT FENCE
- PROFILE DRAINAGE PATTERN
- SURFACE DRAINAGE PATTERN
- CULVERT FLOW DIRECTION
- FISH HABITAT
- ROCK CHECK DAM
- NOT APPLICABLE DITCH DRAINAGE PATTERN
- OBLITERATE ROADWAY
- (1) INVASIVE PLANTS
- WETLANDS

ALL CHECK DAMS/BMP's REMOVED UPON COMPLETION OF PROJECT. SEE SWPPP REPORTS FOR ACTUAL LOCATIONS DURING CONSTRUCTION.



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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ATTACHMENT NUMBER

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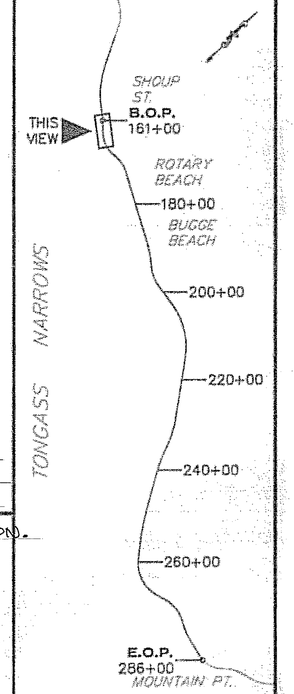


PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA — Chad J. Howard — CE-10835 — REGISTERED PROFESSIONAL ENGINEER — 4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

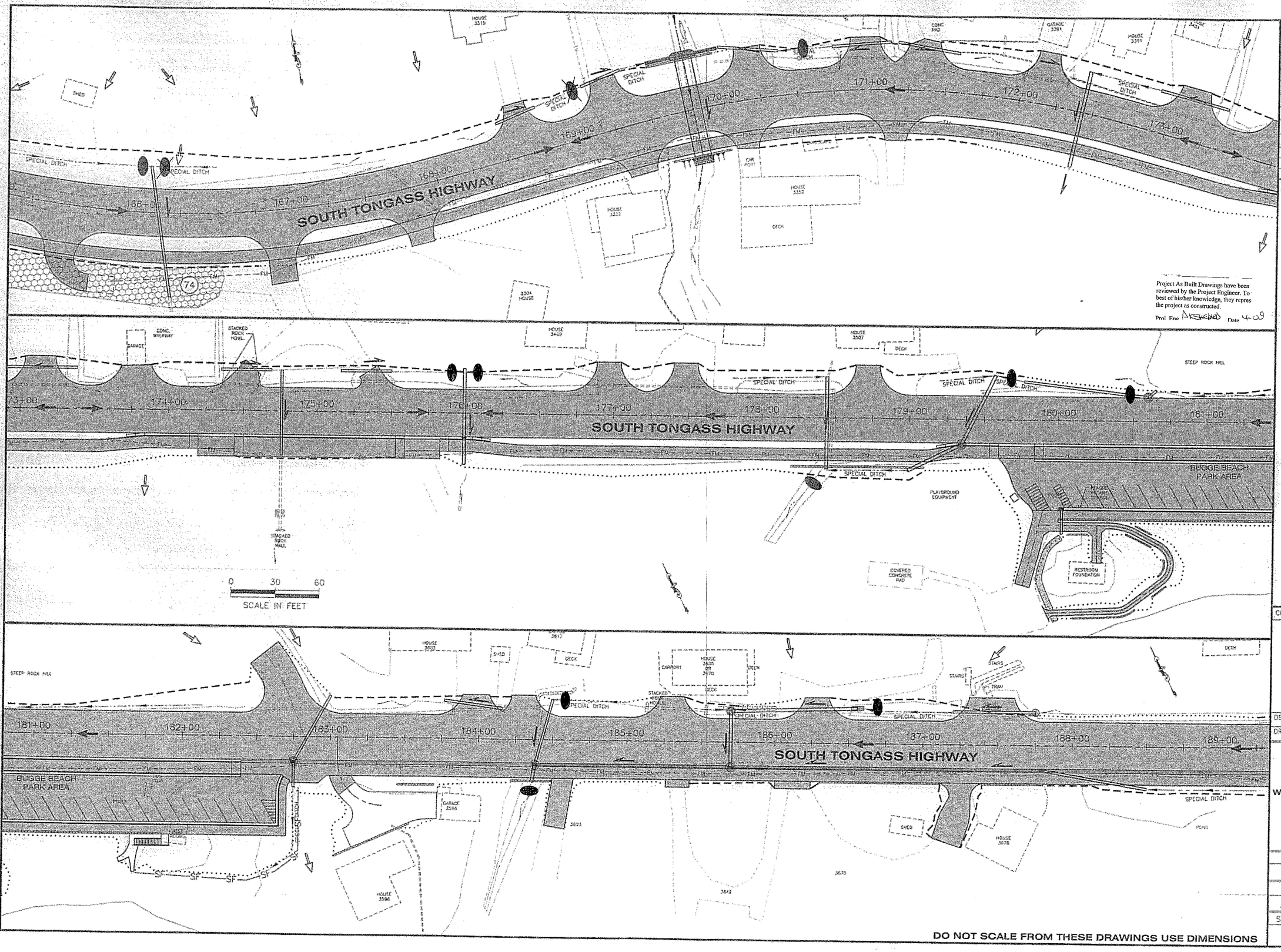
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

EROSION & SEDIMENT CONTROL PLAN

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
T1	179



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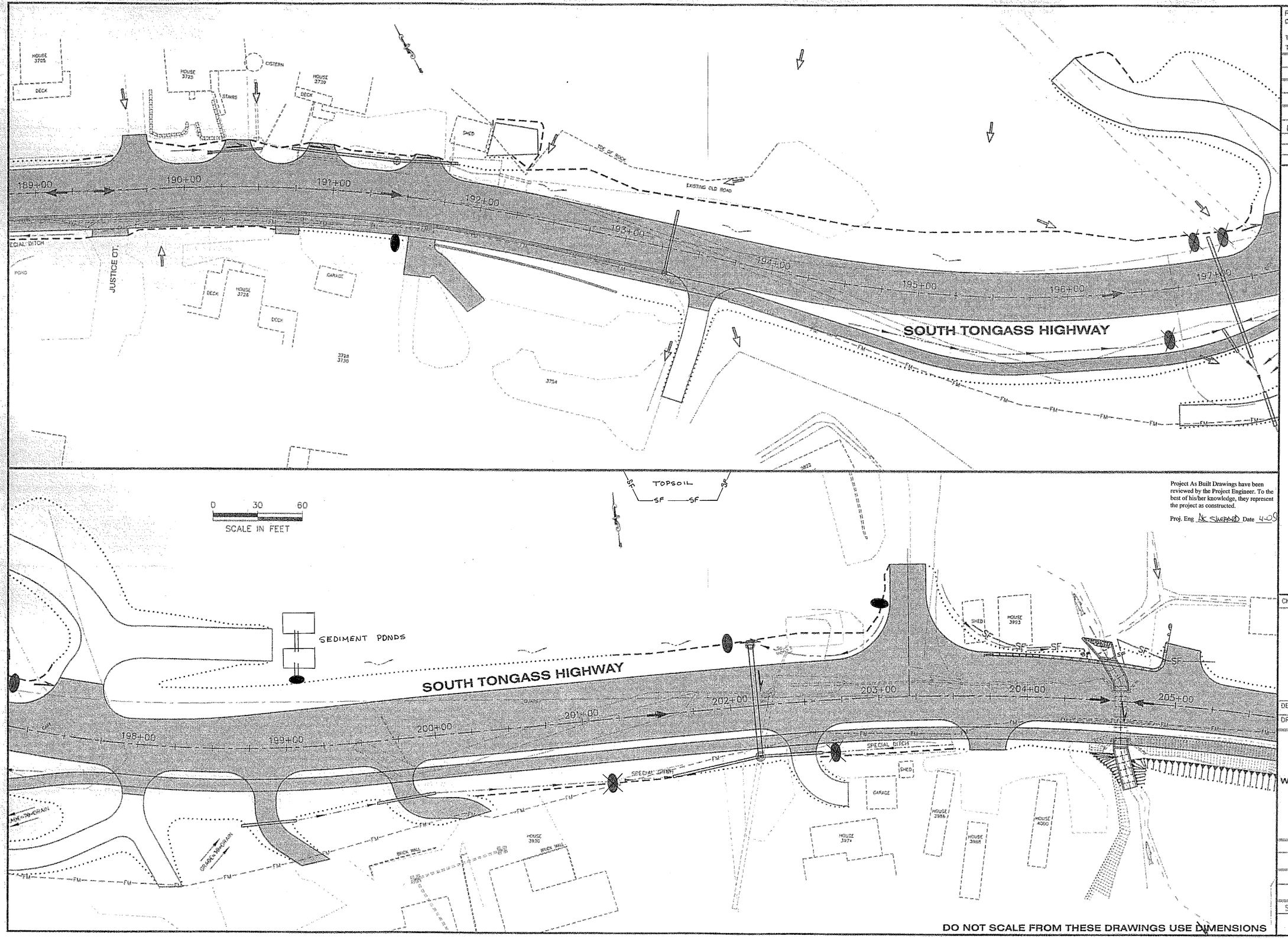
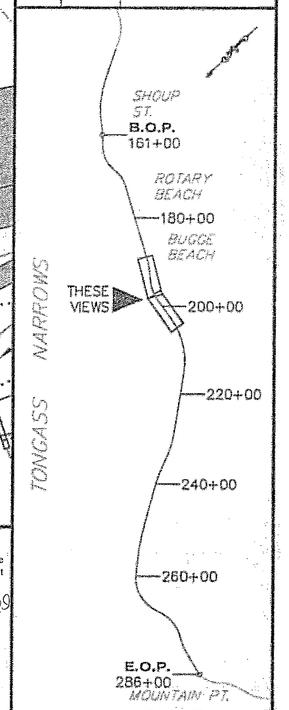


Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SILKEWOOD Date 4-09



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

EROSION & SEDIMENT CONTROL PLAN

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ALASKA	2006
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T3	179

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ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SOUTH TONGASS HIGHWAY

206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00

SEDIMENT POND

ROCK WALL

SPECIAL DITCH

TRAILER PARK

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-26-06

SOUTH TONGASS HIGHWAY

213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00

SPECIAL DITCH

HOUSE 4284

GARAGE HOUSE 4238

HOUSE 4212

GATE

0 30 60
SCALE IN FEET

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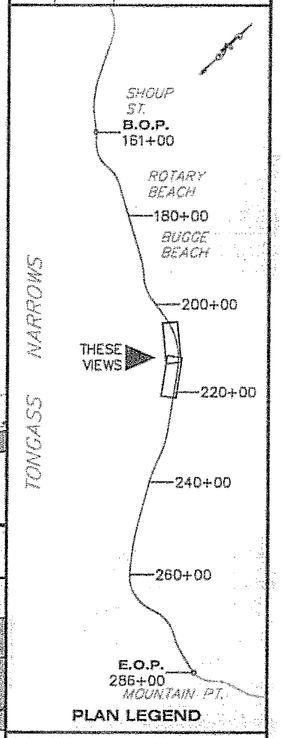


PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

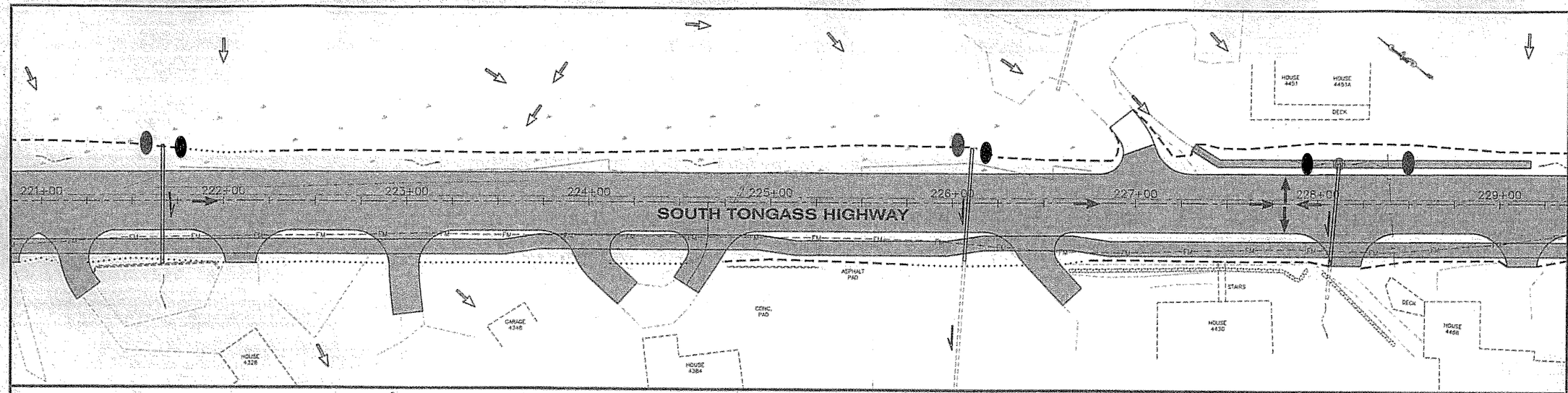
DRAWN BY: R.S./M.L.

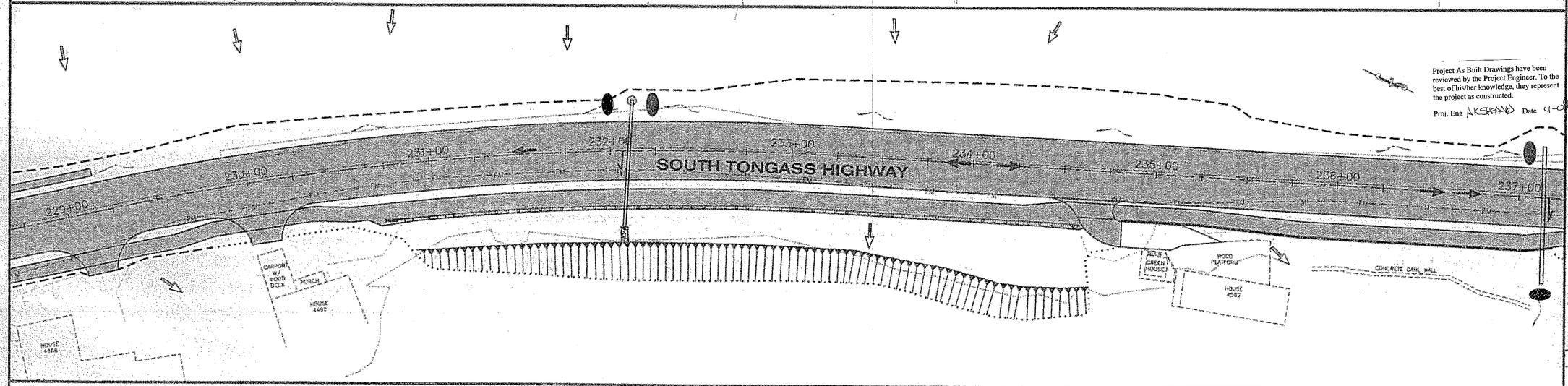
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

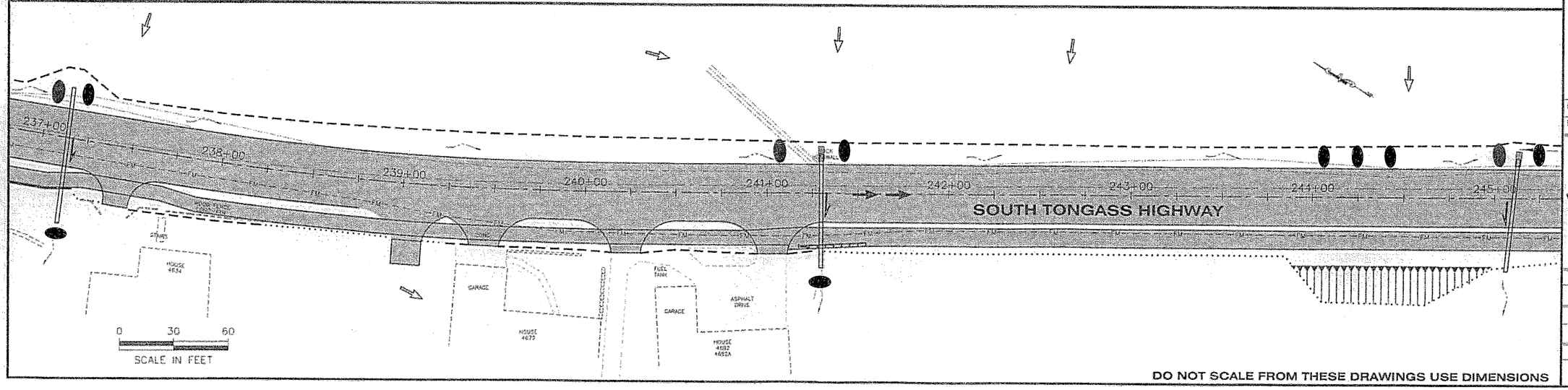
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

EROSION & SEDIMENT CONTROL PLAN

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
T4	179







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Proj. Engr A.K. Steward Date 4-06

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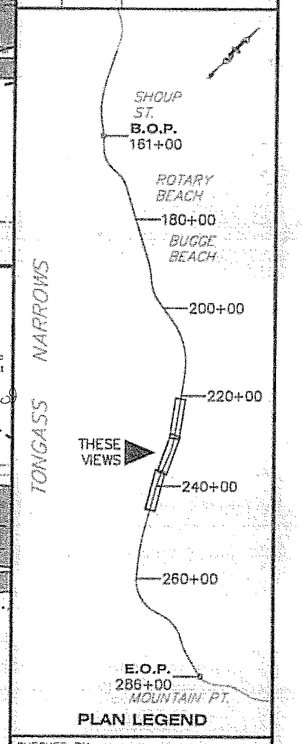

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
4991
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

EROSION & SEDIMENT CONTROL PLAN

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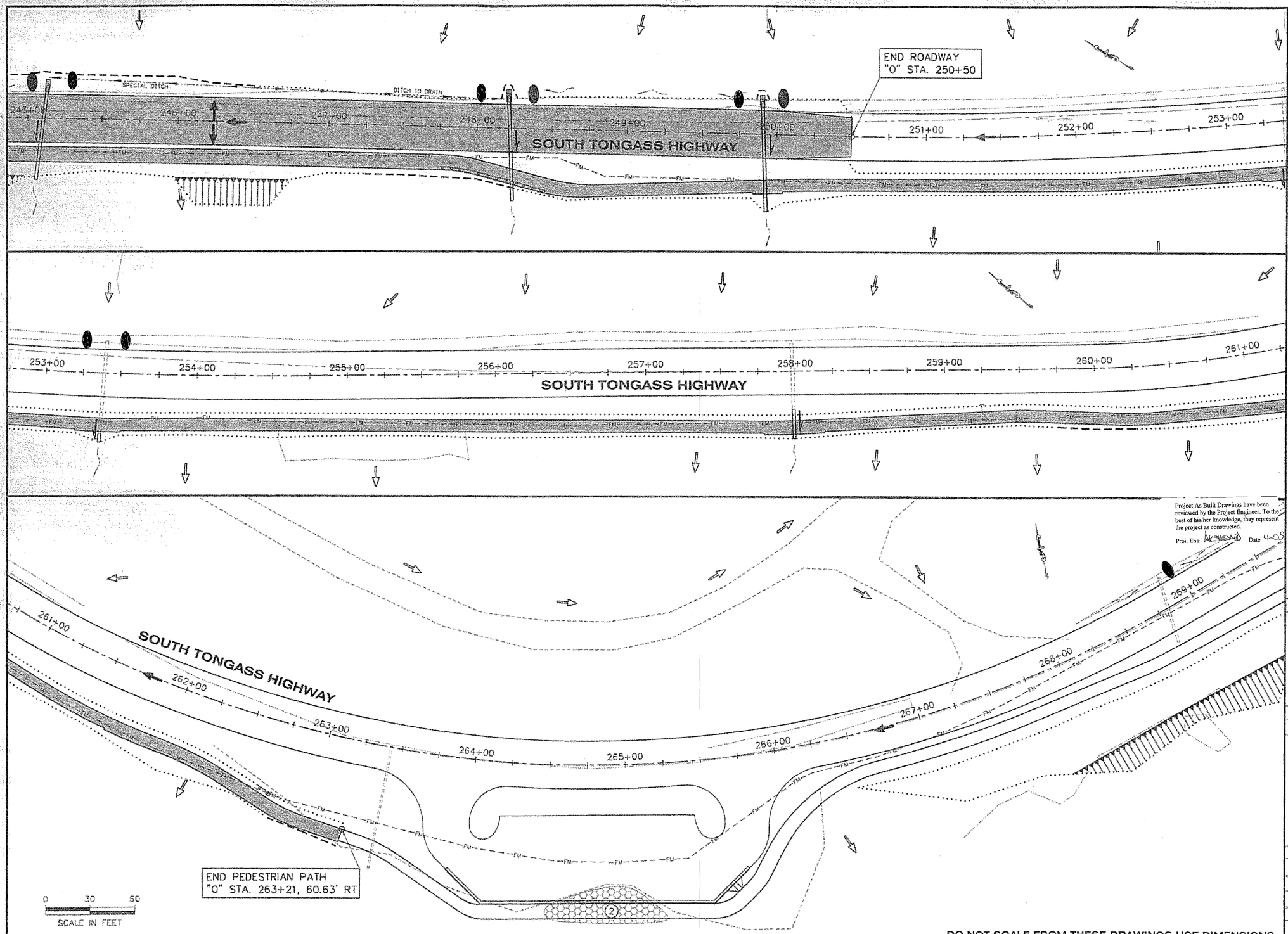
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
T5	179



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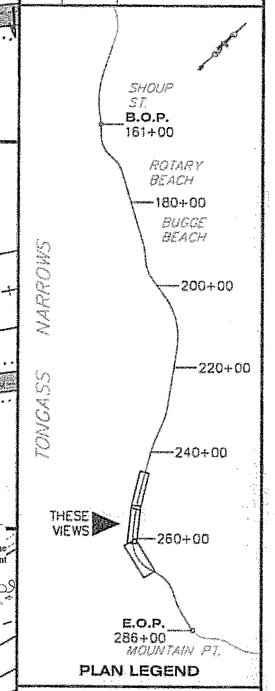

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chadd. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

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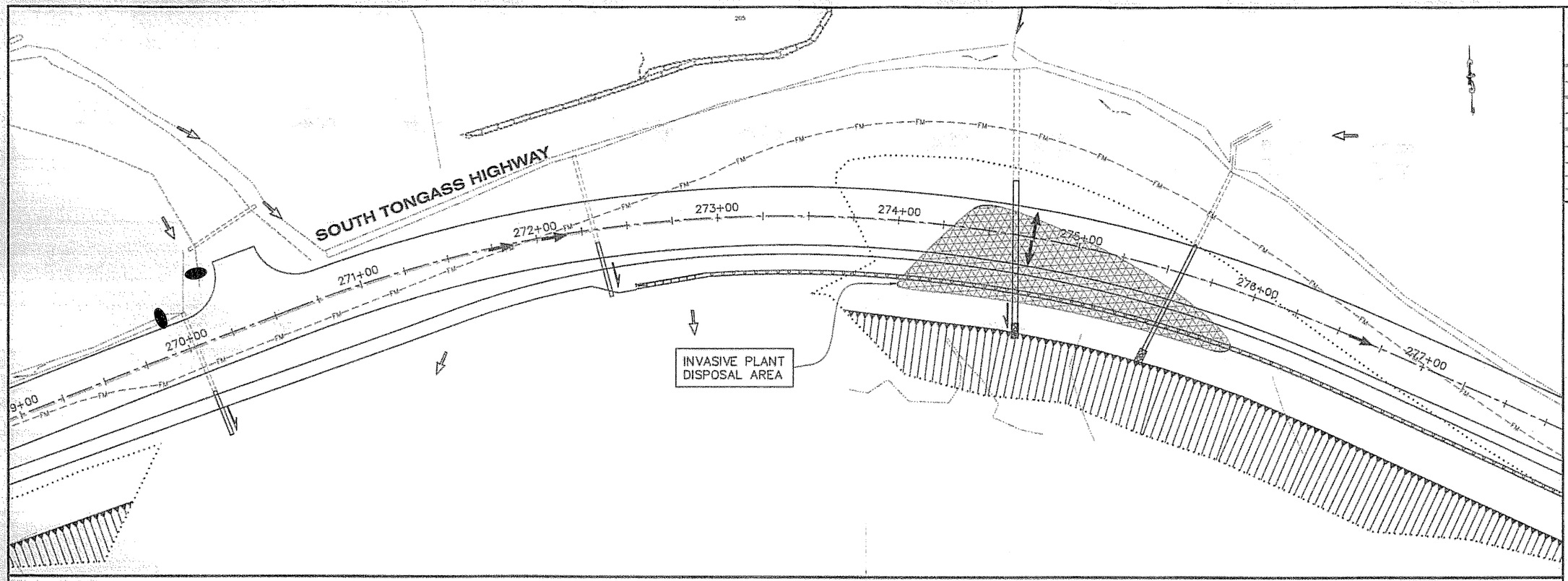

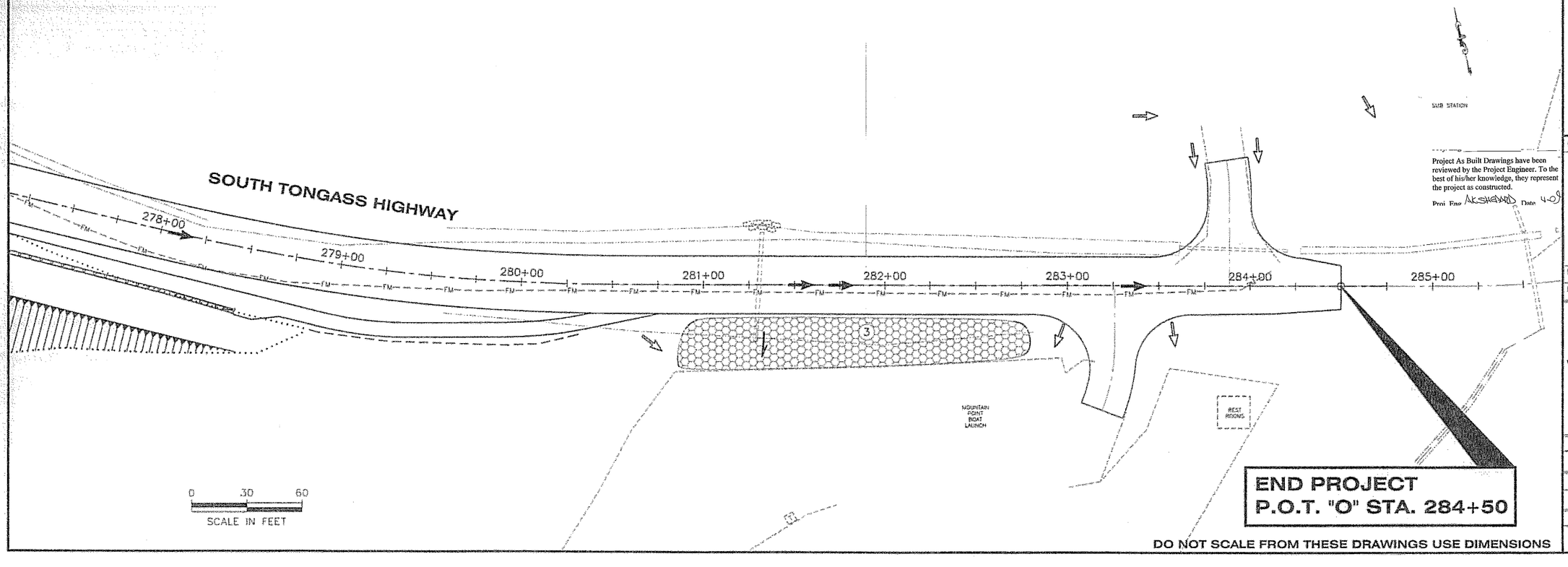

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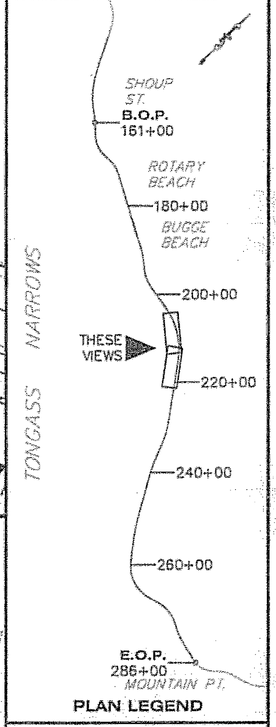
Proj. Engr. AKSHEWARD Date 4-09



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Fri, 05/May/06 11:25AM rksnyder

TAB: T7

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ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
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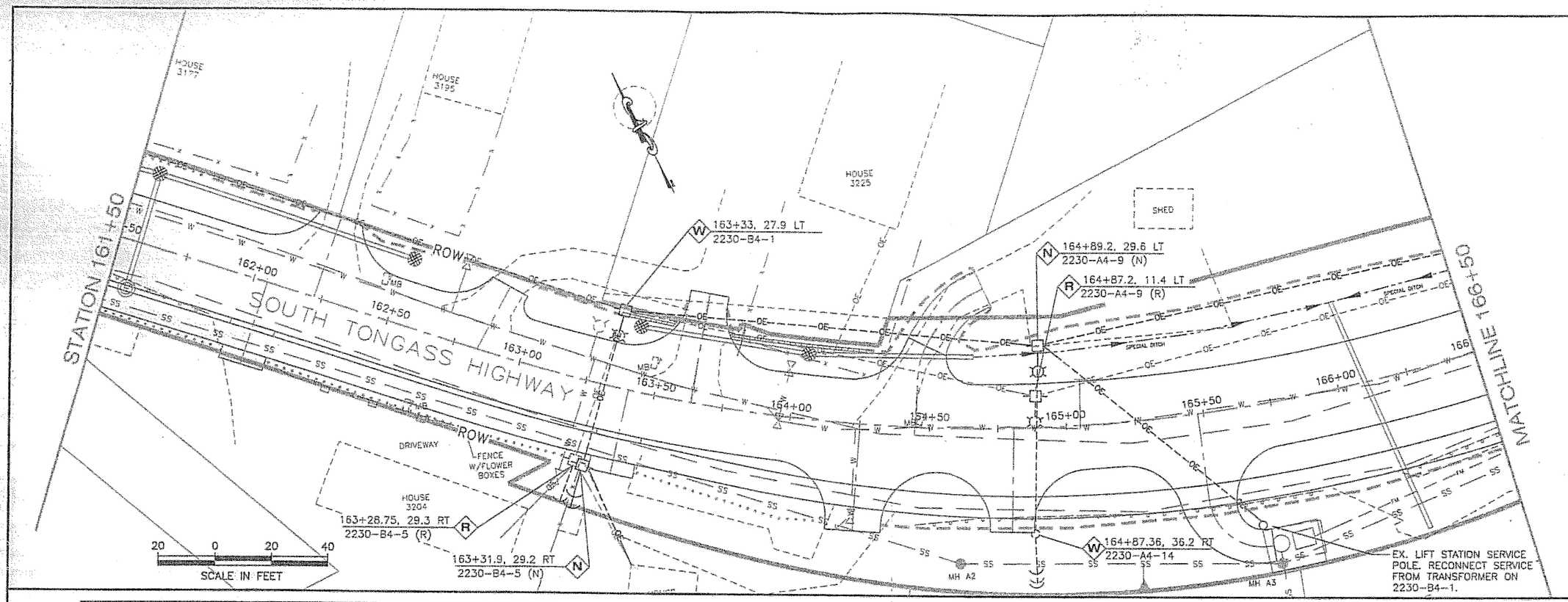


STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUYING GUY	GUYING LEAD	GUYING NO.	GUYING ANC	SECONDARY NO.	SECONDARY J/K	SECONDARY SPAN	SECONDARY WIRE	FINISHED GRADE ELEVATION	REMARKS
R	163+28.75, 29.3RT	2230-B4-5(R)	58	2230-B4-1	35-3	--	--	--	--	--	--	2	--	--	2	--	--	--	--	--	--	RETIRE POLE, DOWN GUYS, RISERS & ANCHORS. REPLACED BY 2230-B4-5(N).
N	163+31.9, 29.2RT	2230-B4-5(N)	59	2230-B4-1	40-2	--	--	--	UM5	--	M2-11	1 1	E1-2A E1-2A	15 10	1 1*	F1-4 F1-4	2	K15	40	2TP	32.3	NEW POLE, RISERS & DOWN GUYS. RELOCATE 2230-B4-5(R) OH SERVICE & UG SERVICE TO THIS POLE, EXTEND AS NECESSARY.
W	163+33, 27.9LT	2230-B4-1	150	2230-A4-9(N)	60-2	336 ACSR RAVEN 1/0	HC-2 C2-2	13	--	G39	--	5	E2-2	59	--	--	3	K15	--	MATCH EX	--	REUSE EXISTING POLE. REMOVE EXISTING (3) OH GUYS. INSTALL NEW OH GUYS TO 2230-B4-5(N) AS NOTED. REBUILD 34.5KV & 12.5KV UNITS. RELOCATE 34.5KV & 12.5KV BACK SPAN CONDUCTORS TO 2230-A4-9(N).
R	164+87.2, 11.4LT	2230-A4-9(R)	206	2230-A4-8(R)	65-2	336 ACSR RAVEN 1/0	--	--	--	--	--	5	--	--	--	--	1	J15	--	--	--	RETIRE POLE & OH GUYS. REPLACED BY 2230-A4-9(N). RELOCATE STREET LIGHT TO NEW POLE.
W	164+87.36, 36.2RT	2230-A4-14	68	2230-A4-9(N)	35-2	--	--	--	--	--	--	2 1	E1-2A E1-2A	18 13	1* 1*	F1-4	--	--	--	--	--	REUSE EXISTING POLE. REMOVE EXISTING (3) DOWN GUYS AND (2) ANCHORS. INSTALL NEW DOWN GUYS AND ANCHORS AS NOTED.
N	164+89.2, 29.6LT	2230-A4-9(N)	207	2230-A4-8(N)	65-2	336 ACSR 336 ACSR	HC5-4 C8-11	17	T-1	--	M2-11	5	E2-2	68	--	--	1	J15	--	MATCH EX	32.6	NEW POLE AND OH GUYS. NEW 34.5KV & 12.5KV BACK SPAN CONDUCTORS TO 2230-A4-8(N). INSTALL EXISTING STREET LIGHT.

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

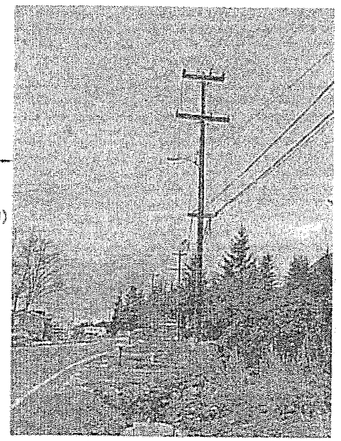
LEGEND

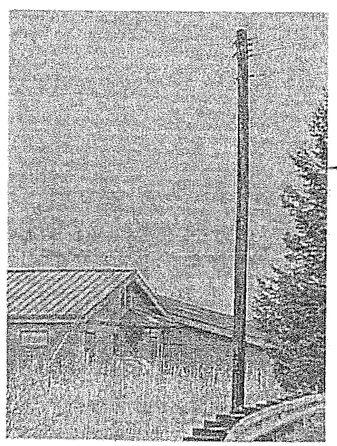
- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

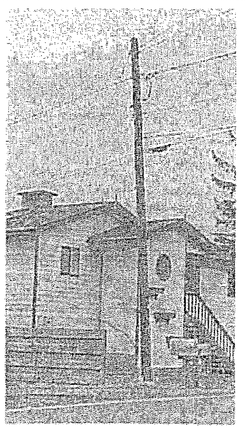
ABBREVIATIONS
OH - OVERHEAD
UG - UNDERGROUND
DDE - DOUBLE DEADEND

EXISTING POLE 2230-B4-1
(NOTE-XFMR BANK HAS BEEN INSTALLED SINCE PHOTO WAS TAKEN)





EXISTING POLE 2230-A4-14



EXISTING POLE 2230-B4-5

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

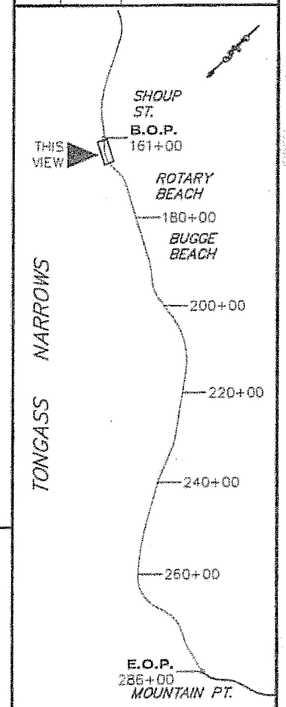
PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 03:12PM peggyl
TAB: U1

ADDENDUM NUMBER

ATTACHMENT NUMBER

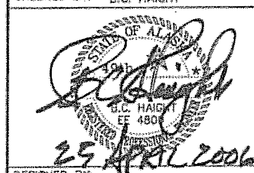
RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT



DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

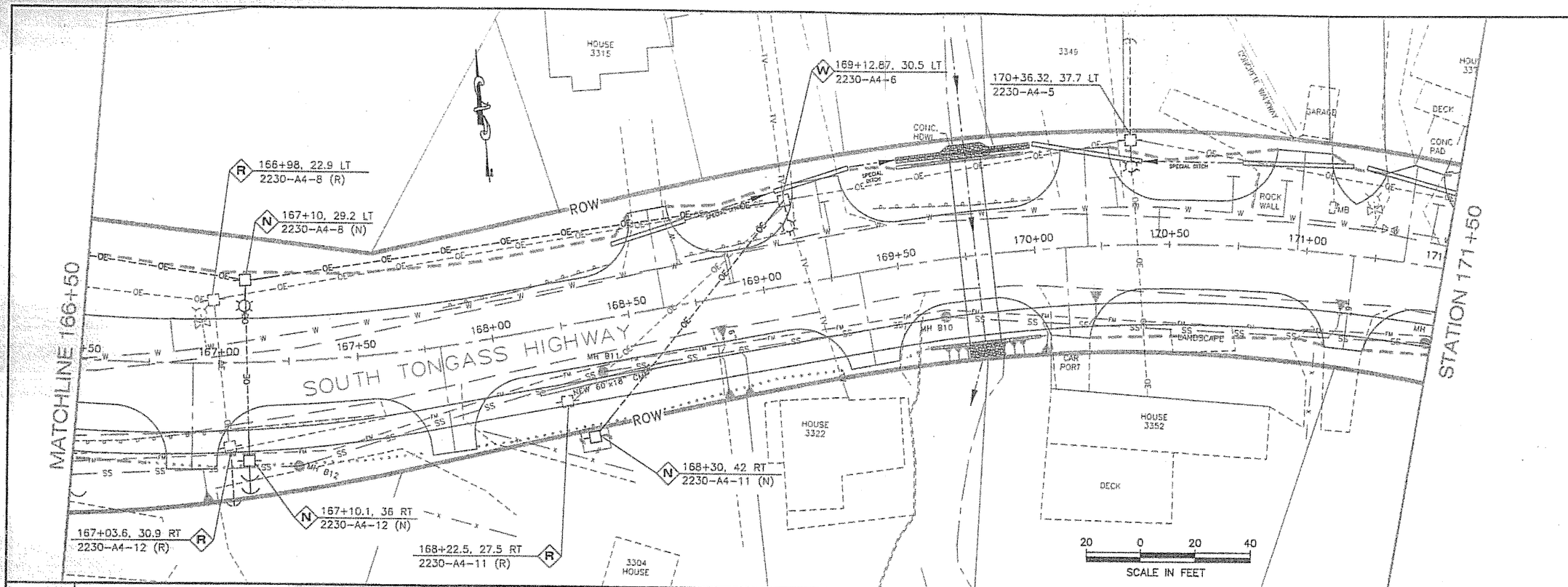
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U1	179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-27



STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	SECONDARY NO.	ANC	NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
R	166+98, 22.9LT	2230-A4-8(R)	208	2230-A4-6	65-2	336 ACSR RAVEN 1/0	--	--	--	--	--	3	--	--	--	--	2	K15	--	--	--	RETIRE POLE & GUYS. REPLACED BY 2230-A4-8(N). RELOCATE STREET LIGHT TO NEW POLE.
R	167+03.6, 30.9RT	2230-A4-12(R)	54	2230-A4-8(R)	35-2	--	--	--	--	--	--	2	--	--	1	--	--	--	--	--	--	RETIRE POLE, DOWN GUYS, RISER, & ANCHOR. REPLACED BY 2230-A4-12(N).
N	167+10, 29.2LT	2230-A4-8(N)	198	2230-A4-6	65-2	336 ACSR RAVEN 1/0	HC5-4 C8-11	18	T-1	--	M2-11	5	E2-2	66	--	--	2	K15	--	MATCH EX	29.4	NEW POLE AND OH GUYS. RELOCATE 2230-A4-8(R) STREET LIGHT, 34.5KV, 12.5KV & SERVICE BACK SPAN CONDUCTORS TO THIS POLE.
N	167+10.1, 36RT	2230-A4-12(N)	66	2230-A4-8(N)	40-2	--	--	--	UM-5	--	M2-11	1 1	E1-2B E1-2A	10 5	1 1	F2-1 F1-4	1	K15	--	MATCH EX	29.5	NEW POLE, RISERS & DOWN GUYS. RELOCATE 2230-A4-12(R) SERVICES TO THIS POLE. INTERCEPT EXISTING UG SERVICE CONDUITS TO SHED 3266.
R	168+22.5, 27.5RT	2230-A4-11(R)	126	2230-A4-6	35-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	RETIRE POLE & RISERS. REPLACED BY 2230-A4-11(N).
N	168+30, 42RT	2230-A4-11(N)	110	2230-A4-6	40-2	--	--	--	UM-5	--	M2-11	--	--	--	--	--	1	K15	110	MATCH EX	26.8	NEW POLE & RISERS. RELOCATE 2230-A4-11(R) SERVICES TO THIS POLE. INTERCEPT & RECONSTRUCT EXISTING UG SERVICE CONDUITS TO HOUSE 3304.
W	169+12.87, 30.5LT	2230-A4-6	129	2230-A4-5	60-2	336 ACSR RAVEN 1/0	--	1	--	G39-25	--	--	--	--	--	--	--	--	--	--	--	CHECK ALL ASSEMBLIES AFTER FORWARD SPANS AND SERVICE ARE RELOCATED.

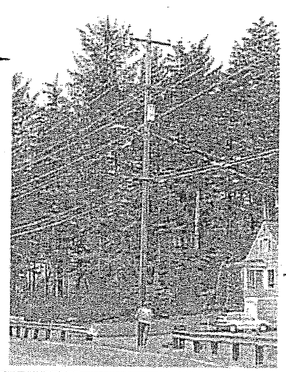
(R) RETIRE, (N) NEW

LEGEND

- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

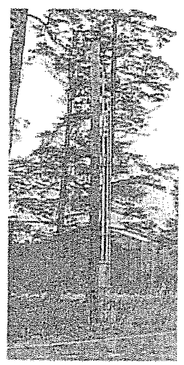
CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

EXISTING POLE 2230-A4-6



HOUSE 3315

EXISTING POLE 2230-A4-11(R)



EXISTING POLE 2230-A4-12(R)

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. _____ Date 4-09

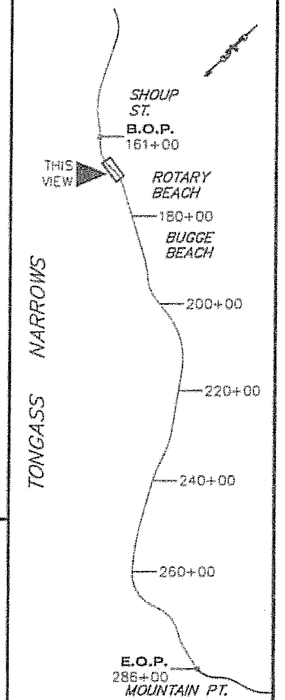
PATH:
98-U1-U13.dwg
Tue, 25/Apr/06 03:12PM peggyl
TAB: U2

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
4800
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

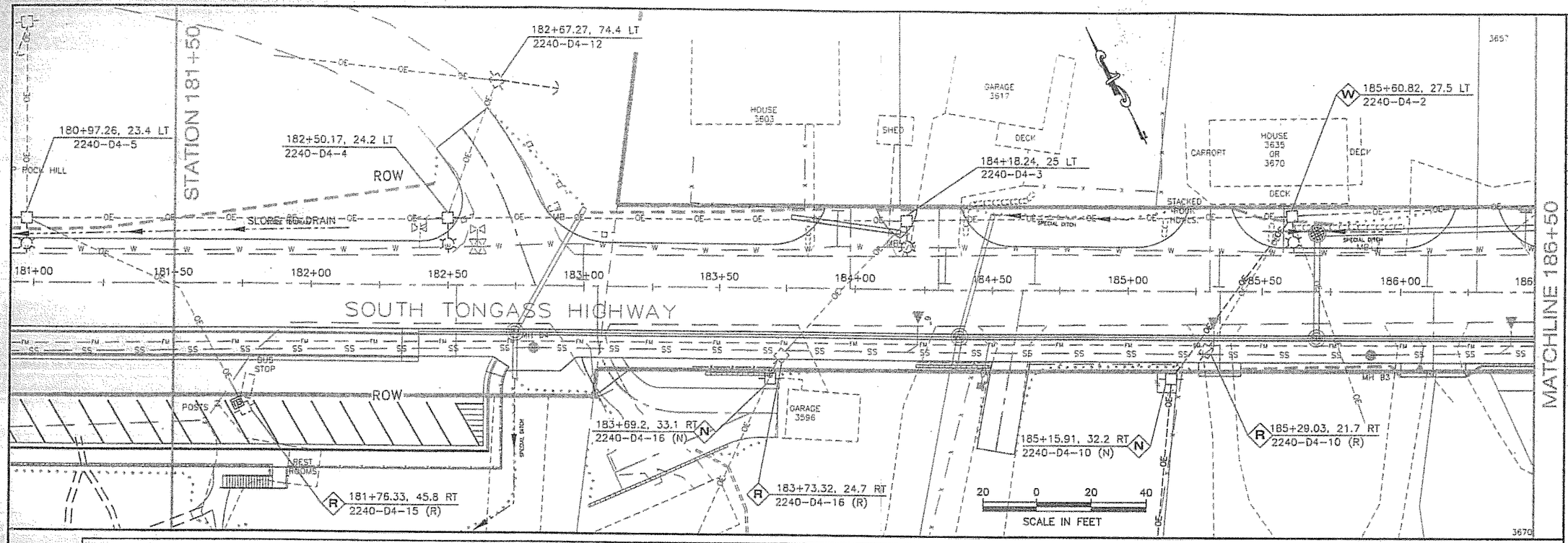
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U2	179



STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

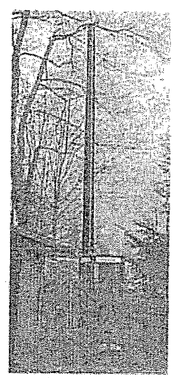
	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUYING GUY	GUYING LEAD	SECONDARY NO.	SECONDARY ANC	SECONDARY NO.	SECONDARY J/K	SECONDARY SPAN	SECONDARY WIRE	FINISHED GRADE ELEVATION	REMARKS
R	181+76.33, 45.8RT	2240-D4-15(R)	105	2240-D4-5	35-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	RETIRE POLE.
N	183+69.2, 33.1RT	2240-D4-16(N)	76	2240-D4-3	50-2	--	--	--	--	--	M2-11	--	--	--	--	--	1	K10	--	2TP	38.8	NEW POLE. RELOCATE 2240-D4-16(R) SERVICE TO THIS POLE.
R	183+73.32, 24.7RT	2240-D4-16(R)	64	2240-D4-3	40-2	--	--	--	--	--	--	--	--	--	--	--	1	K10	--	2TP	--	RETIRE POLE. REPLACED BY 2240-D4-16(N).
N	185+15.91, 32.2RT	2240-D4-10(N)	75	2240-D4-2	40-2	--	--	--	--	--	M2-11	--	--	--	--	--	1	K10	--	MATCH EX	50.7	NEW POLE. RELOCATE SERVICE ON 2240-D4-10(R) TO THIS POLE.
R	185+29.03, 21.7RT	2240-D4-10(R)	55	2240-D4-2	35-2	--	--	--	--	--	--	--	--	--	--	--	--	K10	--	--	--	RETIRE POLE. REPLACED BY 2240-D4-10(N).
W	185+60.82, 27.5LT	2240-D4-2	142	2240-D4-1	60-2	336 ACSR RAVEN 1/0	--	3	--	G39-25	--	--	--	--	--	--	--	--	--	--	--	CHECK ALL ASSEMBLIES AFTER SERVICE ON 2240-D4-10 IS RELOCATED.

(R) RETIRE, (N) NEW

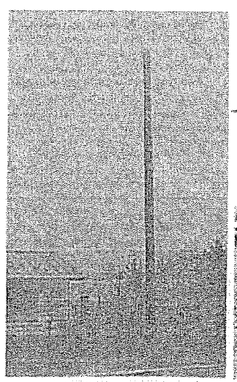
LEGEND

- T TEMP
- R RETIRE
- N NEW
- W WORK REQUIRED

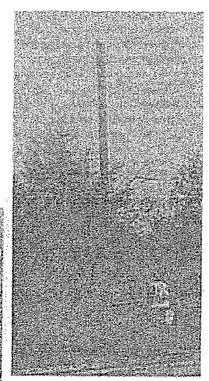
CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.



EXISTING POLE 2240-D4-15(R)



EXISTING POLE 2240-D4-16(R)



EXISTING POLE 2240-D4-10(R)

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHARD Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 03:11PM peggyl
TAB: U3

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

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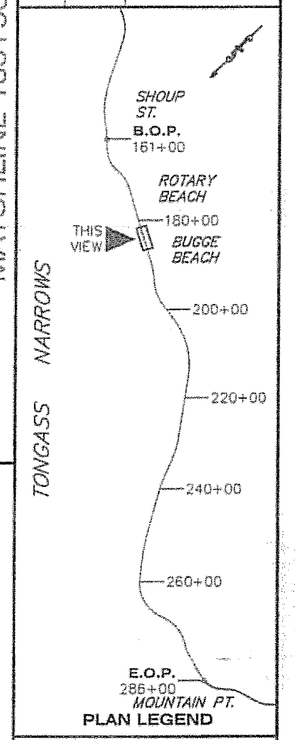


PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

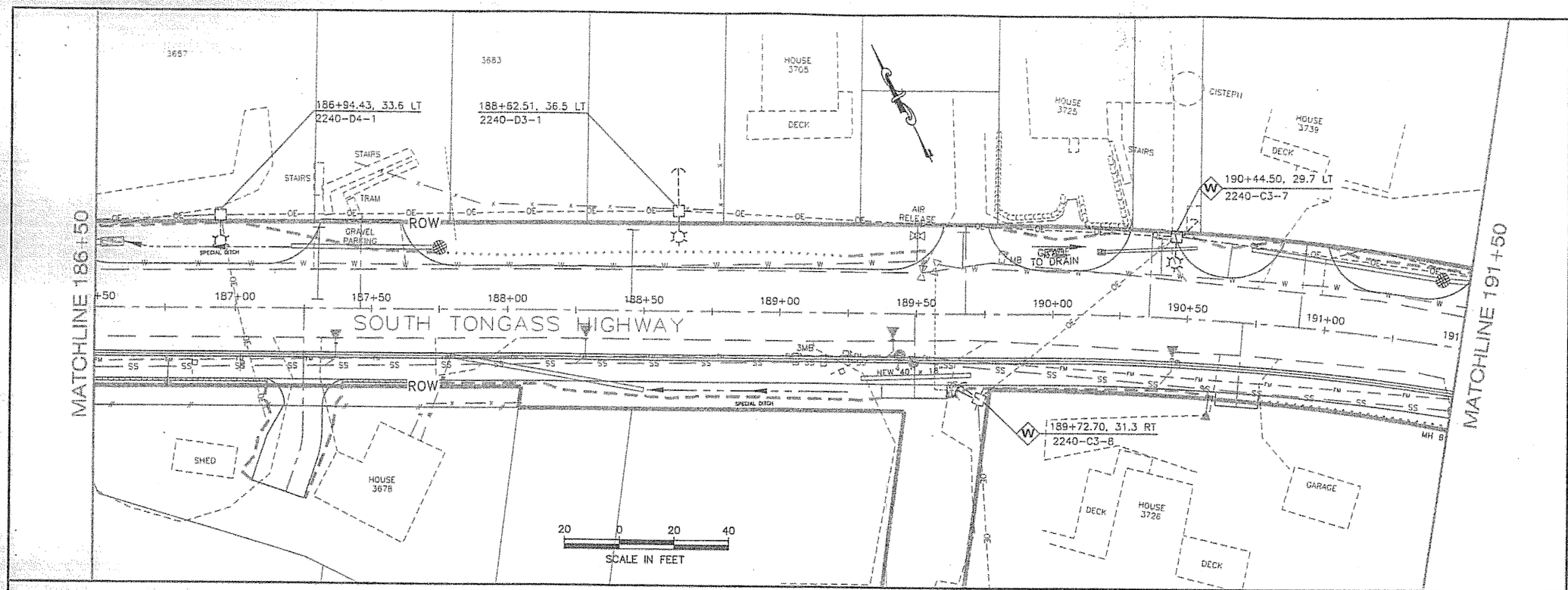
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U3	179



STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

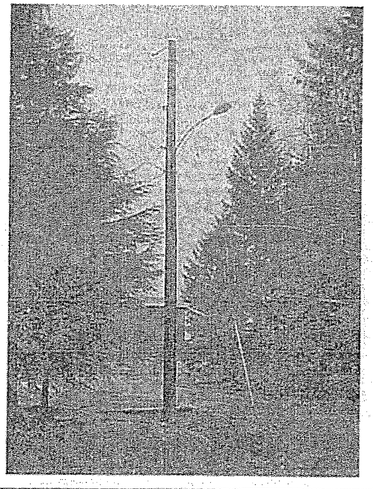
	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	SECONDARY NO.	ANC	NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
W	189+72.70, 31.3RT	2240-C3-8	95	2240-C3-7	45-2	1/0 ACSR	--	--	--	--	--	2	E3	8	1*	F1-2	--	--	--	--	--	REMOVE EXISTING (2) DOWN GUYS & ANCHOR. INSTALL NEW SIDEWALK DOWN GUYS & ANCHOR. COORDINATE WITH EXISTING FIRE HYDRANT.
W	190+44.50, 29.7LT	2240-C3-7	152	2240-C3-6(N)	60-2	336 ACSR RAVEN 1/0	--	5	--	--	--	--	--	--	--	--	--	--	--	--	--	RECONNECT 34.5KV & 12.5KV BACKSPAN CONDUCTORS TO NEW DDE AT 2240-C3-6(N).

*PROVIDE 3-EYE ANCHOR (R) RETIRE, (N) NEW

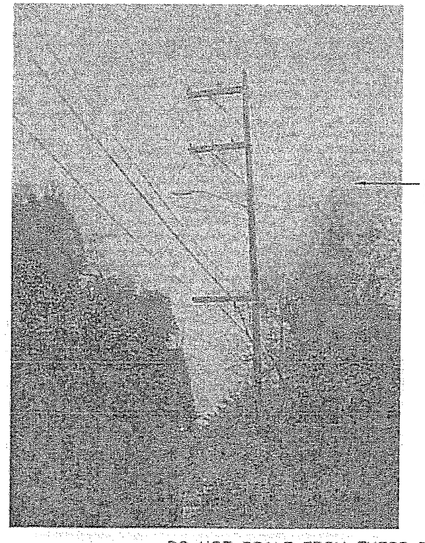
LEGEND
- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

EXISTING POLE 2240-C3-8



EXISTING POLE 2240-C3-8



EXISTING POLE 2240-C3-7

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr A.K. HEPPNER Date 4-00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 03:10PM peggyl
TAB: U4

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

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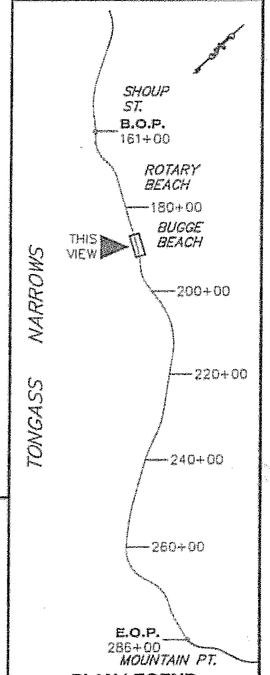


PLAN LEGEND

CHECKED BY: B.C. HAIGHT

DESIGNED BY: M.A. HANSEN

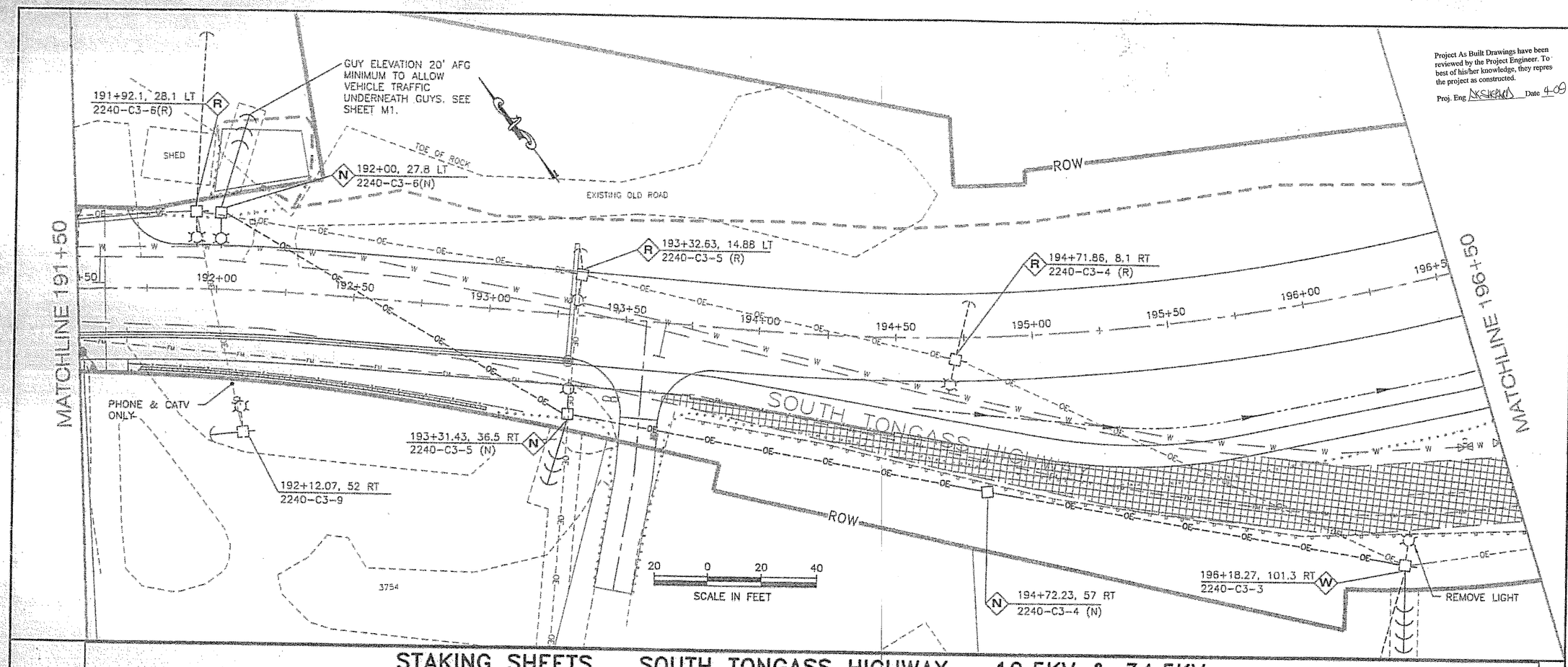
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U4	179



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Engr NKSHAW Date 4-09

PATH:
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TAB: U5

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

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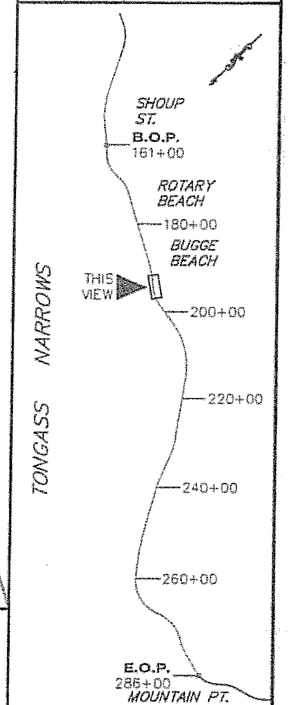


PLAN LEGEND

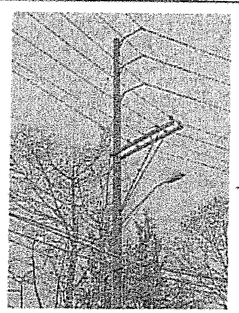
STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUYING GUY	GUYING LEAD	GUYING NO.	GUYING ANC	SECONDARY NO.	SECONDARY J/K	SECONDARY SPAN	SECONDARY WIRE	FINISHED GRADE ELEVATION	REMARKS
R	191+92.1, 28.1LT	2240-C3-6(R)	141	2240-C3-5(R)	60-2	336 ACSR RAVEN 1/0	---	---	---	---	---	4	---	---	---	---	---	---	---	---	---	RETIRE POLE & DOWN GUYS. REPLACED BY 2240-C3-6(N). RELOCATE STREET LIGHT TO NEW POLE.
N	192+00, 27.8LT	2240-C3-6(N)	147	2240-C3-5(N)	60-2	336 ACSR 336 ACSR	HC5-4 C8-11	33	T-1	---	M2-11	2 2 1	E1-2A E1-2A E1-2A	35 30 25	1* 1* 1*	F5 F5 F5	---	---	---	---	58.3	NEW POLE, DOWN GUYS & ANCHORS. NEW 34.5KV & 12.5KV BACKSPAN CONDUCTOR TO 2240-C3-5(N). INSTALL EXISTING STREET LIGHT.
N	193+31.43, 36.5RT	2240-C3-5(N)	157	2240-C3-4(N)	60-2	336 ACSR 336 ACSR	HC-2 C2-2	20	A5-1 T-1	---	M2-11	2 2 1	E1-2A E1-2A E1-2A	25 20 15	1* 1* 1*	F1-4 F1-4 F1-4	---	---	---	---	50.5	NEW POLE, DOWN GUYS & ANCHORS. NEW 34.5KV & 12.5KV BACKSPAN CONDUCTOR TO 2240-C3-4(N). RELOCATE 2240-C3-5(R) 7200V TAP TO THIS POLE. INSTALL EXISTING STREET LIGHT.
R	193+32.63,14.88LT	2240-C3-5(R)	141	2240-C3-4(R)	60-2	336 ACSR RAVEN 1/0	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---	RETIRE POLE & GUYS. REPLACED BY 2240-C3-5(N). RELOCATE EXISTING STREET LIGHT TO NEW POLE.
R	194+71.86, 8.1RT	2240-C3-4(R)	183	2240-C3-3	50-2	336 ACSR RAVEN 1/0	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---	RETIRE POLE & GUYS. REPLACED BY 2240-C3-4(N).
N	194+72.23, 57RT	2240-C3-4(N)	156	2240-C3-3	60-2	336 ACSR RAVEN 1/0	HC-1 C2-2	0	T-1	---	M2-11	---	---	---	---	---	---	---	---	---	42.5	NEW POLE. NEW 34.5KV AND 12.5KV BACKSPAN CONDUCTORS TO 2240-C3-3.
W	196+18.27,101.3RT	2240-C3-3	131	2240-C3-2	60-2	336 ACSR RAVEN 1/0	HC5-4 C8-11	18	---	---	---	1 2 1/1	E1-2A E1-2A E1-2A	30 25 20/15	1 1* 1/1	F5 F5 F5	---	---	---	---	---	REUSE EXISTING POLE. REPLACE 34.5KV UNIT, 12.5KV UNIT, DOWN GUYS, AND ANCHORS WITH NEW AS NOTED. REMOVE EXISTING STREET LIGHT.

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

LEGEND
- T TEMP
- R RETIRE
- N NEW
- W WORK REQUIRED



EXISTING POLE 2240-C3-3

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA B.C. HAIGHT EE 4806 25 APRIL 2006

DESIGNED BY: M.A. HANSEN

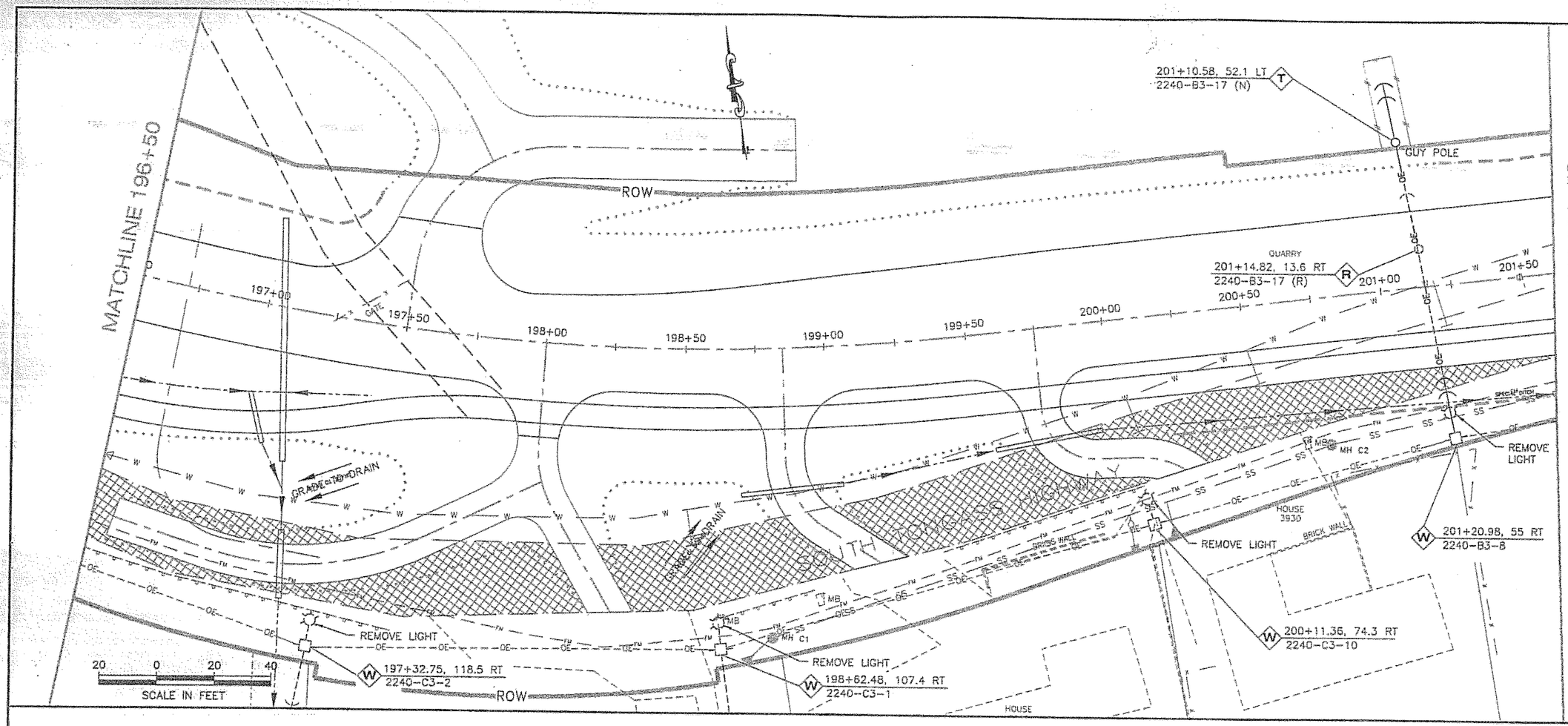
DRAWN BY: RLG/MAH

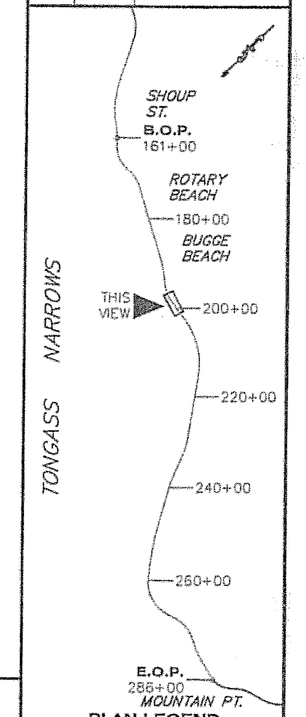
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U5	179





PLAN LEGEND

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUYING GUY	GUYING LEAD	GUYING NO.	GUYING ANC	SECONDARY NO.	SECONDARY J/K	SECONDARY SPAN	SECONDARY WIRE	FINISHED GRADE ELEVATION	REMARKS
W	197+32.75,118.5RT	2240-C3-2	149	2240-C3-1	60-2	336 ACSR RAVEN 1/0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CHECK ALL ASSEMBLIES AFTER FORWARD SPANS ARE RELOCATED. REMOVE STREET LIGHT.
W	198+62.48,107.4RT	2240-C3-1	162	2240-C3-10	60-2	336 ACSR RAVEN 1/0	--	--	--	G9-25	--	--	--	--	--	--	--	--	--	--	--	REMOVE STREET LIGHT.
W	200+11.36,74.3RT	2240-C3-10	113	2240-B3-8	60-2	336 ACSR RAVEN 1/0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	REMOVE STREET LIGHT.
T	201+10.58,52.1LT	2240-B3-17(N)	107	2240-B3-8	45-2	--	--	--	--	--	--	2	E1-2A	20 15	1 1	F1-2 F1-2	--	--	--	--	32.8	NEW TEMPORARY POLE DURING ROAD CONSTRUCTION. REMOVE POLE, DOWN GUYS & ANCHORS AFTER EXISTING ROAD ABANDONED.
R	201+14.82,13.6RT	2240-B3-17(R)	-	2240-B3-8	35-2	--	--	--	--	--	--	3	--	--	1	--	--	--	--	--	--	RETIRE POLE, DOWN GUYS & ANCHOR.
W	201+20.98,55RT	2240-B3-8	159	2240-B3-7	50-2	336 ACSR RAVEN 1/0	--	7	--	--	--	3 2 1	E2-2 E1-2A E1-2A	107 20 15	-- 1* 1*	-- F1-2 F1-2	--	--	--	--	--	EXTEND TEMP OH GUYS TO 2240-B3-17(N). REPLACE OH GUYS WITH NEW DOWN GUYS AND ANCHORS AS NOTED AFTER NEW ROAD IN USE. REMOVE STREET LIGHT.

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

LEGEND
- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng [signature] Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 03:08PM peggyl
TAB: U6

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
BRUCE C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

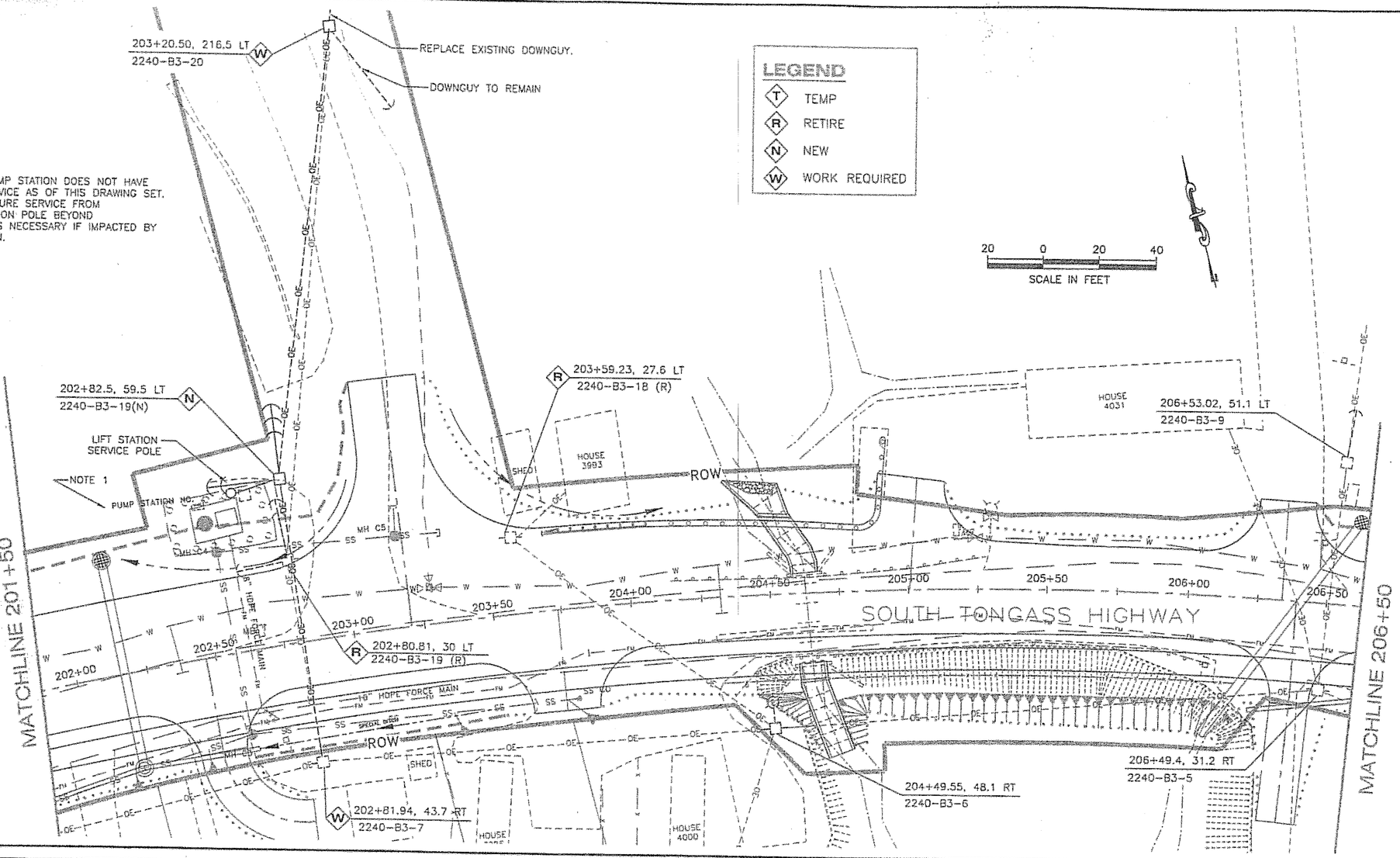
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U6	179

NOTE:

1. NEW SEWER PUMP STATION DOES NOT HAVE ELECTRICAL SERVICE AS OF THIS DRAWING SET. RECONNECT FUTURE SERVICE FROM TRANSFORMERS ON POLE BEYOND 2240-B3-20 AS NECESSARY IF IMPACTED BY LINE RELOCATION.



STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	SECONDARY NO.	ANC	NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
R	202+80.81,30LT	2240-B3-19(R)	74	2240-B3-7	45-2	RAVEN 1/0	---	---	---	---	---	5	---	---	3	---	---	---	---	---	---	RETIRE POLE, GUYS & ANCHORS. REPLACED BY 2240-B3-19(N).
W	202+81.94,43.7RT	2240-B3-7	178	2240-B3-6	55-2	336 ACSR RAVEN 1/0	---	---	---	---	---	3	E2-2	104	---	---	---	---	---	---	---	REMOVE EXISTING OH GUYS (3). INSTALL NEW OH GUYS TO 2240-B3-19(N).
N	202+82.5,59.5LT	2240-B3-19(N)	104	2240-B3-7	50-2	336 ACSR	C8-1	17	---	---	M2-11	3 2	E1-2A E1-2A	25/20/15 20/15	1/1/1* 1/1	F1-3 F1-2	---	---	---	---	33.3	NEW POLE, 12.5KV BACKSPAN CONDUCTORS, DOWN GUYS & ANCHORS.
W	203+20.50,216.5LT	2240-B3-20	163	2240-B3-19(N)	35-2	RAVEN 1/0	C8-1	43	---	---	---	1	E1-2A	20	1	F1-2	---	---	---	---	---	REPLACE EXISTING BACKSPAN DOWN GUY & ANCHOR WITH NEW AS NOTED. RELOCATE 12.5KV BACKSPAN CONDUCTORS TO 2240-B3-19(N).
R	203+59.23,27.6LT	2240-B3-18(R)	124	2240-B3-6	45-2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	RETIRE POLE. RETIRE SERVICE TO HOUSE 3993.

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Engr AKSHEPARD Date 4-20

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 03:02PM peggyl
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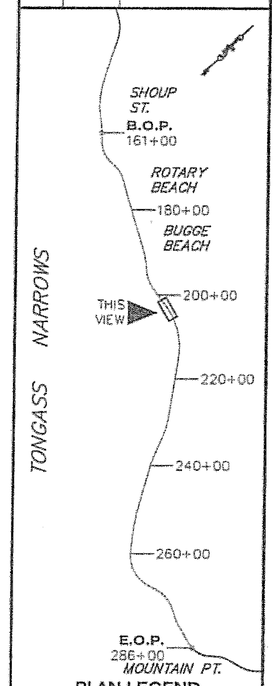
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4000
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

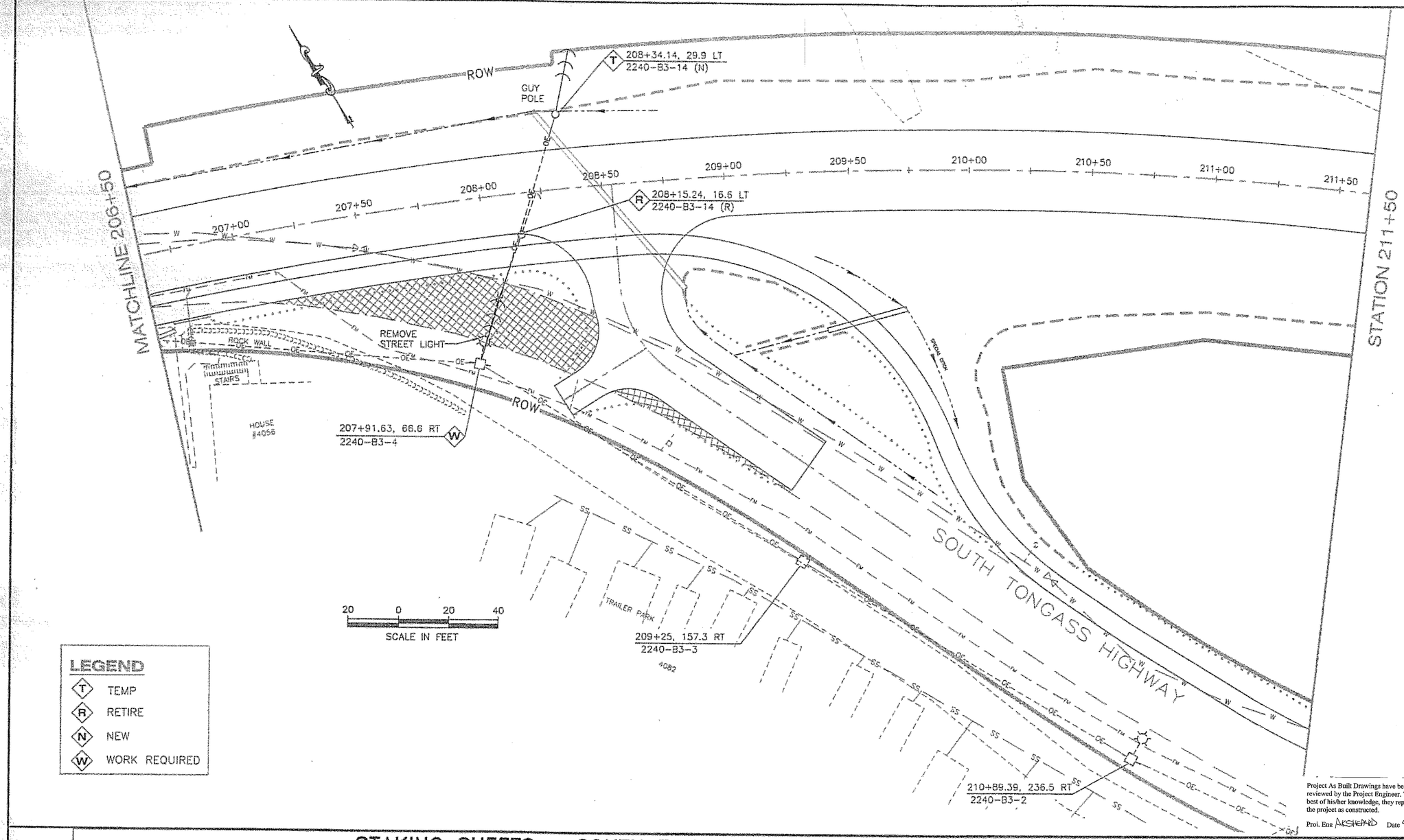
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U7	179



LEGEND

- T TEMP
- R RETIRE
- N NEW
- W WORK REQUIRED

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	NO.	ANC	SECONDARY NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
W	207+91.63, 66.6RT	2240-B3-4	155	2240-B3-3	65-2	336 ACSR RAVEN 1/0	--	27	--	--	--	5 2/2 1	E2-2 E1-2A E1-2A	105 25/20 15	-- 1*/1* 1*	-- F1-4 F1-4	--	--	--	--	--	REMOVE DOWN GUY & EXTEND TEMP OH GUYS TO TEMP 2240-B3-14(N). AFTER NEW ROAD IN USE, REPLACE OH GUYS WITH DOWN GUYS & ANCHORS, AS NOTED. REMOVE STREET LIGHT.
R	208+15.24, 16.6LT	2240-B3-14(R)	55	2240-B3-4	35-2	--	--	--	--	--	--	2	--	--	3	--	--	--	--	--	--	RETIRE POLE, DOWN GUYS & ANCHORS. REPLACED BY 2240-B3-14(N).
T	208+34.14, 29.9LT	2240-B3-14(N)	105	2240-B3-4	35-2	--	--	--	--	--	--	1 1/1	E1-2A E1-2A	25 20/15	1 1/1*	F1-3	--	--	--	--	53.5	NEW TEMPORARY POLE DURING ROAD CONSTRUCTION. REMOVE POLE, DOWN GUYS & ANCHORS AFTER EXISTING ROAD ABANDONED.

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSHEAD Date 4-25

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 02:59PM peggyl
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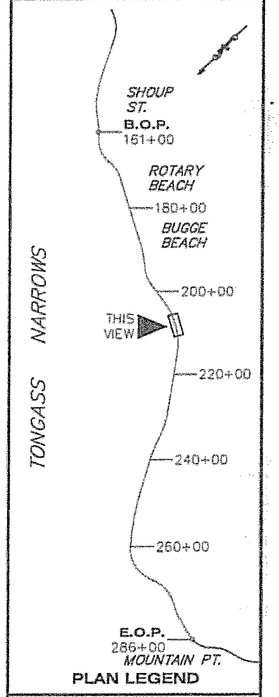
ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

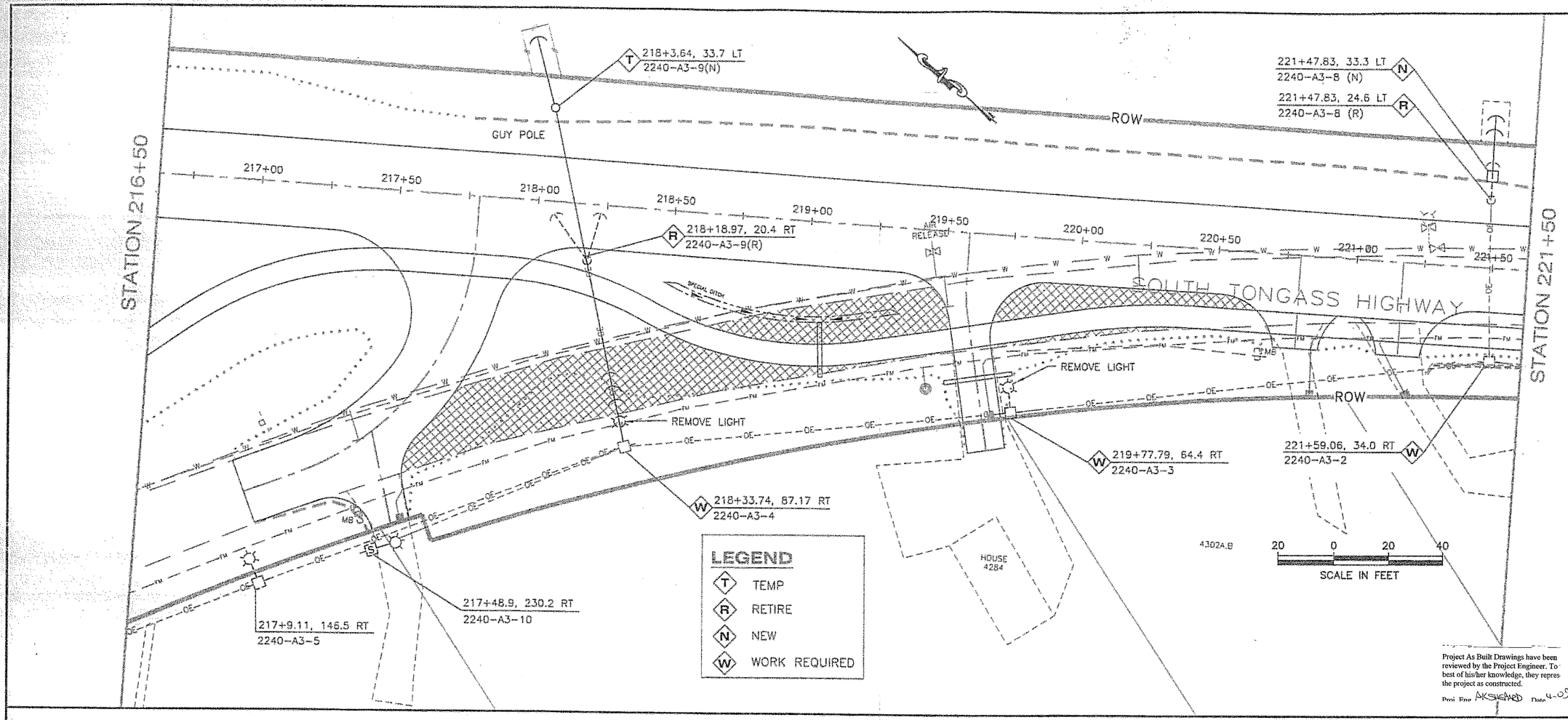
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION
PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U8	179



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng. AKSIGNED Date 4-09

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUYING GUY	GUYING LEAD	GUYING NO.	GUYING ANC	SECONDARY NO.	SECONDARY J/K	SECONDARY SPAN	SECONDARY WIRE	FINISHED GRADE ELEVATION	REMARKS
T	218+3.64,33.7LT	2240-A3-9(N)	125.5	2240-A3-4	45-2	--	--	--	--	--	--	2 1	E1-2A E1-2A	25/20 15	1/1 1*	F1-4 F1-4	--	--	--	--	52.8	NEW TEMPORARY POLE DURING ROAD CONSTRUCTION. REMOVE POLE, DOWN GUYS & ANCHORS AFTER EXISTING ROAD ABANDONED.
R	218+18.97,20.4RT	2240-A3-9(R)	70	2240-A3-4	35-2	--	--	--	--	--	--	2	--	--	3	--	--	--	--	--	--	RETIRE POLE, GUYS & ANCHORS. REPLACED BY TEMP 2240-A3-9(N).
W	218+33.74,87.17RT	2240-A3-4	141	2240-A3-3	65-2	336 ACSR	--	15	--	G39-15	--	3 2 2/1	E2-2 E1-2A E1-2A	126 25 20/15	TEMP 1* 1*/1*	- F1-3 F1-3	--	--	--	--	--	EXTEND EXISTING OH GUYS TO TEMP 2240-A3-9(N). AFTER NEW ROAD IN USE, REPLACE OH GUYS WITH DOWN GUYS AND ANCHORS AS NOTED. REMOVE STREET LIGHT.
W	219+77.79, 64.4RT	2240-A3-3	177	2240-A3-2	50-2	336 ACSR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	REMOVE STREET LIGHT.
R	221+47.83,24.6LT	2240-A3-8(R)	59	2240-A3-2	35-3	--	--	--	--	--	--	3	--	2	--	--	--	--	--	--	--	RETIRE POLE, GUYS, & ANCHORS. REPLACED BY 2240-A3-8(N).
N	221+47.83,33.3LT	2240-A3-8(N)	67.3	2240-A3-2	40-2	--	--	--	--	--	--	1 1	E1-2A E1-2A	20 15	1 1*	F1-3 F1-3	--	--	--	--	46.9	NEW POLE. INSTALL NEW DOWN GUYS AND ANCHORS.
W	221+59.06,34.0RT	2240-A3-2	169	2240-A3-1	--	336 ACSR RAVEN 1/0	--	--	--	--	--	3	E2-2	68	--	--	--	--	--	--	--	REMOVE EXISTING OH GUYS (3). INSTALL NEW OH GUYS TO 2240-A3-8(N).

(R) RETIRE, (N) NEW, *PROVIDE 3-EYE ANCHOR

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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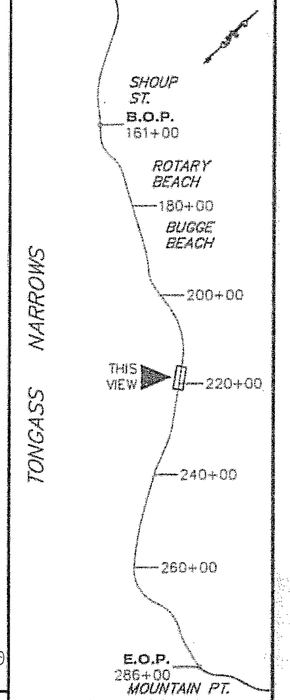
TAB: U9

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
10th
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

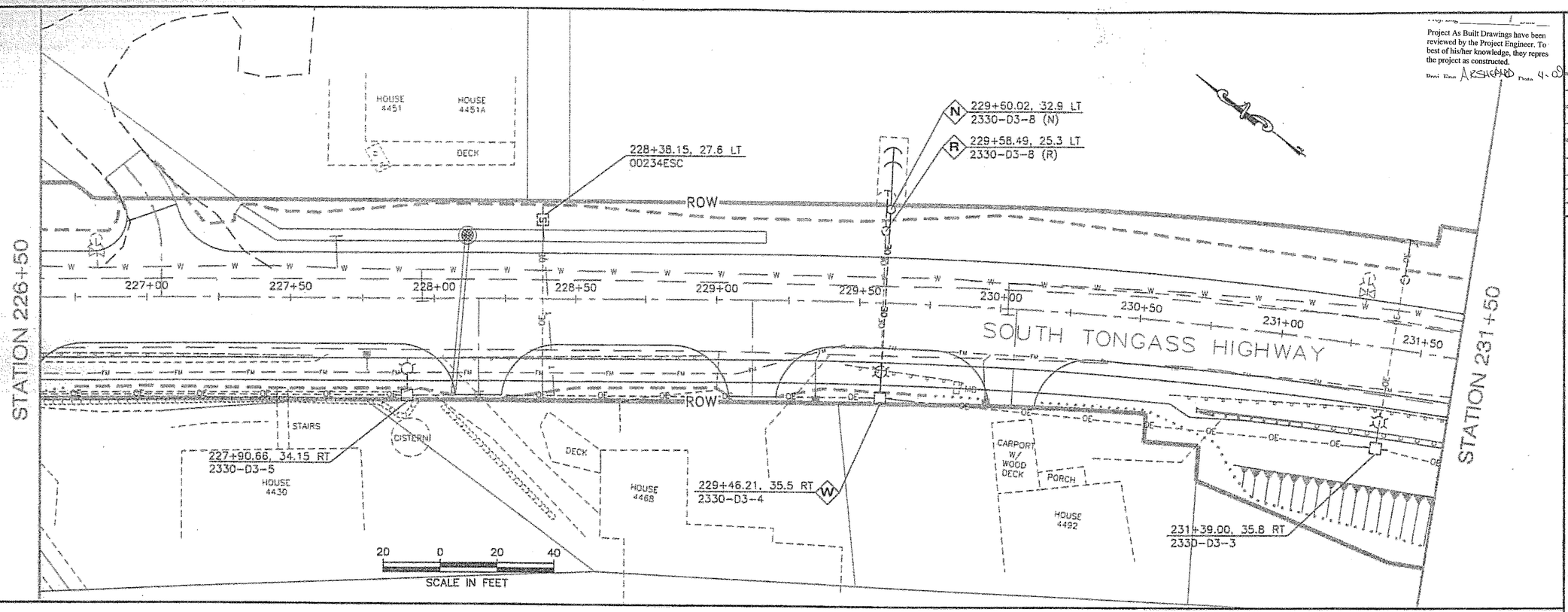
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
U9	179



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng. ARSHAMD Date 4-00

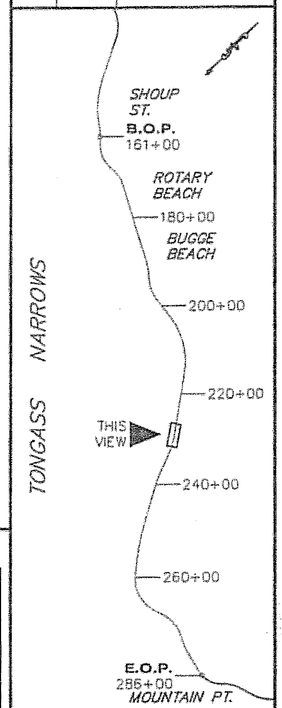
PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 02:55PM peggyl
TAB: U10

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	NO.	ANC	SECONDARY NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
W	229+46.21,35.5RT	2330-D3-4	177	2330-D3-3	55-2	336 ACSR	---	6	---	---	---	3	E2-2	67	---	---	---	---	---	---	---	REMOVE EXISTING OH GUYS (1). INSTALL NEW OH GUYS TO 2330-D3-8(N).
R	229+58.49,25.3LT	2330-D3-8(R)	59	2330-D3-4	20-4	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	RETIRE POLE, GUY & ANCHOR. REPLACED BY 2330-D3-8(N)
N	229+60.02,32.9LT	2330-D3-8(N)	66.5	2330-D3-4	35-2	---	---	---	---	---	---	1/1	E1-2	20/15	1/1	F1-3	---	---	---	---	42.3	NEW POLE. INSTALL NEW DOWN GUYS AND ANCHORS, AS NOTED.

(R) RETIRE, (N) NEW

LEGEND
- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
48th
B.C. HAIGHT
EE 4900
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

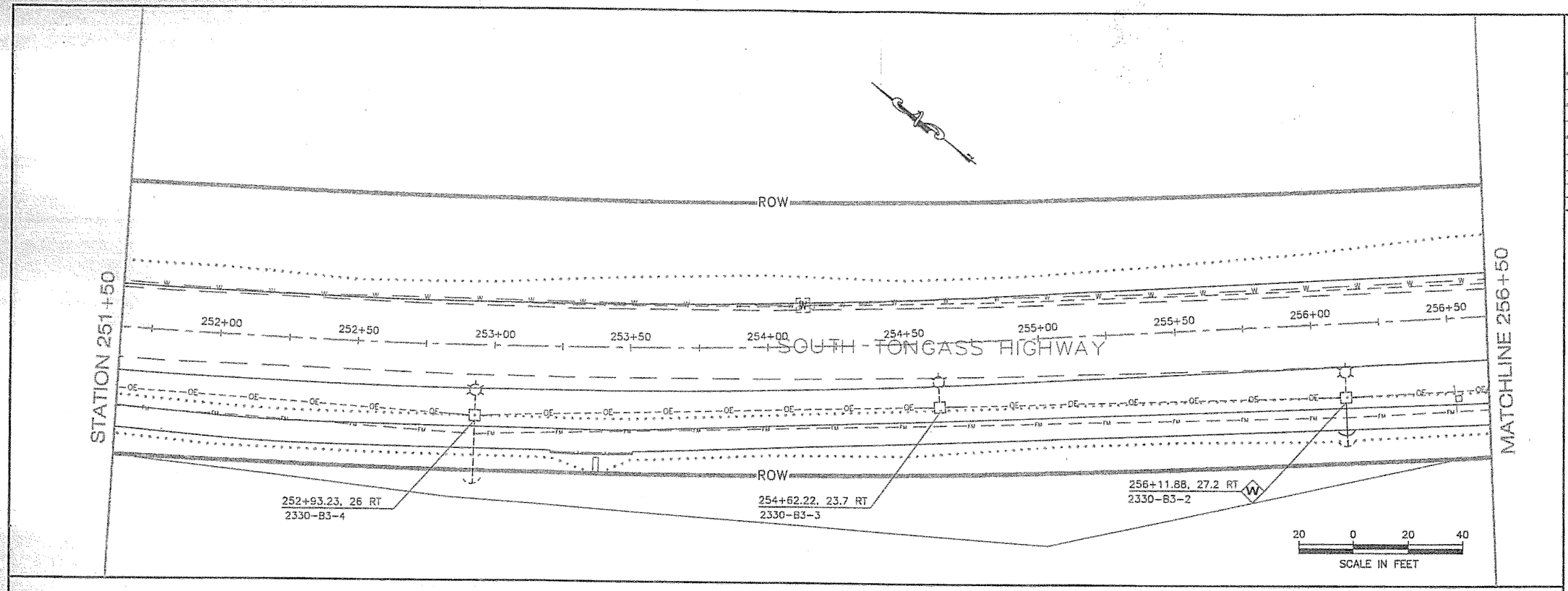
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
U10	179



STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	SECONDARY NO.	ANC	NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
(W)	256+11.88,27.2RT	2330-B3-2	149	2330-B3-1	--	--	--	2	--	--	--	2	E3	12	1	F5	--	--	--	--	--	REMOVE EXISTING DOWN GUYS (2) & ANCHOR. INSTALL NEW AS NOTED. MAINTAIN 1 FOOT MINIMUM CLEARANCE BETWEEN PATH AND DOWN GUY.

(R) RETIRE, (N) NEW

LEGEND

- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

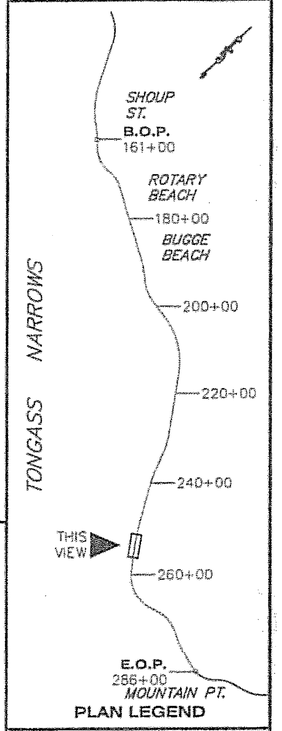
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 02:54PM peggyl
TAB: U11

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AKSHENRD Date 4-09

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
PROFESSIONAL ENGINEER
25 APRIL 2006

DESIGNED BY: M.A. HANSEN
DRAWN BY: RLG/MAH

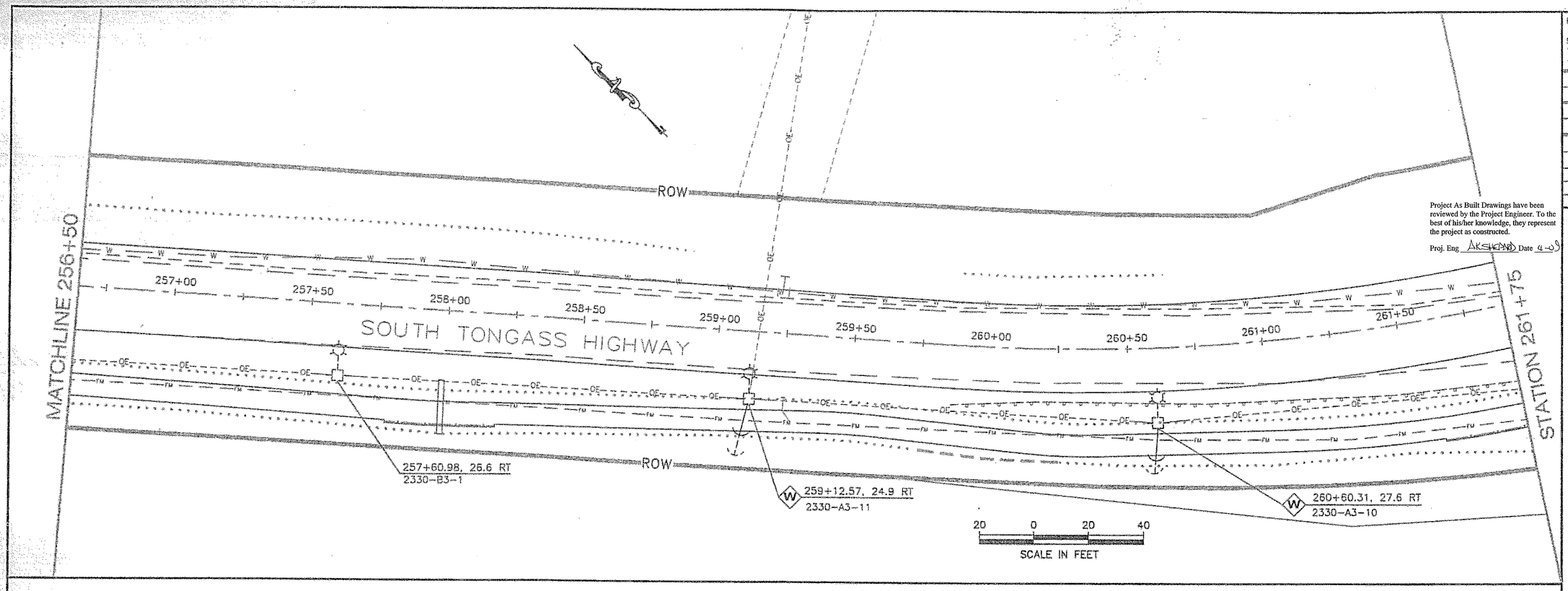
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U11	179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date 4-0

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	NO.	ANC	SECONDARY NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
W	259+12.57,24.9RT	2330-A3-11	150	2330-A3-10		---	---	0	---	---	---	1	E3	12	1	F5	---	---	---	---	---	RETAIN TOP (1) DOWN GUYS AND (1) ANCHOR. REPLACE BOTTOM DOWN GUY WITH SIDEWALK GUY. MAINTAIN 1 FOOT MINIMUM CLEARANCE BETWEEN PATH AND DOWN GUY.
W	260+60.31,27.6RT	2330-A3-10	154	2330-A3-9		---	---	8	---	---	---	1	E3	12	1	F5	---	---	---	---	---	RETAIN TOP (2) DOWN GUYS AND (1) ANCHOR. REPLACE BOTTOM DOWN GUY WITH SIDEWALK GUY. MAINTAIN 1 FOOT MINIMUM CLEARANCE BETWEEN PATH AND DOWN GUY.

(R) RETIRE, (N) NEW

LEGEND

- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

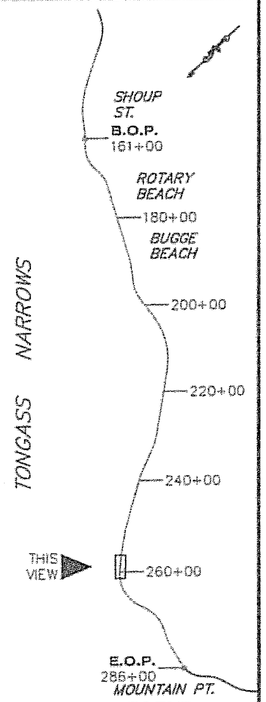
PATH:
99-U1-U13.dwg
Tue, 25/Apr/06 02:35PM peggyl
TAB: U12

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLC/MAH

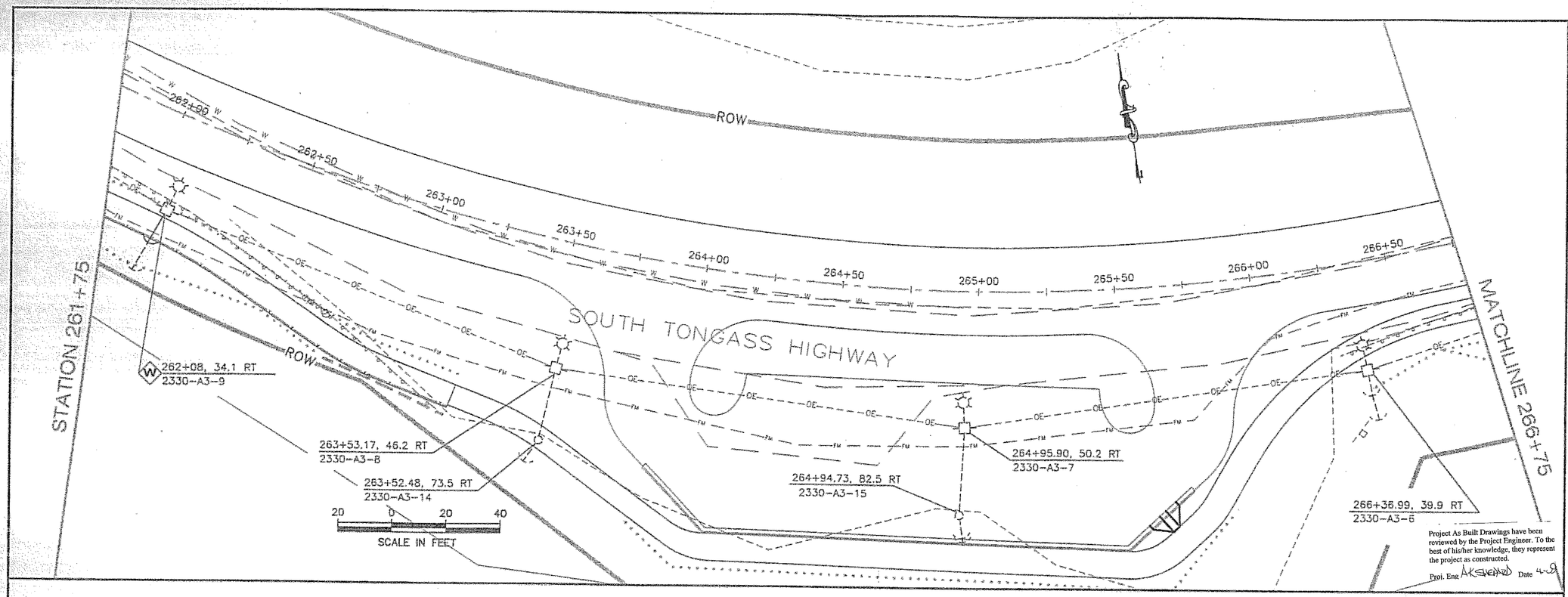
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U12	179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr AKSHEARD Date 4-9

PATH:

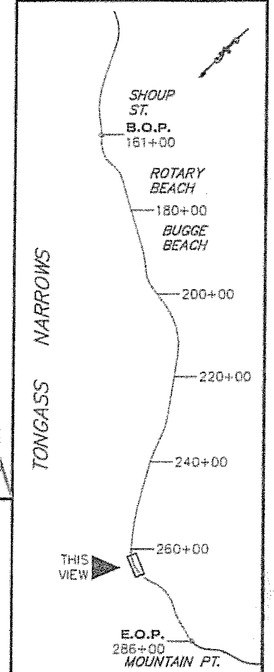
99-U1-U13.dwg
Tue, 25/Apr/06 02:33PM peggyl
TAB: U13

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

STAKING SHEETS SOUTH TONGASS HIGHWAY 12.5KV & 34.5KV

	STATION	POLE NUMBER	BACK SPAN (ft)	SOURCE POLE	POLE H & C	PRIM. WIRE	PRIM. UNIT	LINE ANGLE	MISC UNIT	TRANS UNIT	GRD	GUYING NO.	GUY	LEAD	NO.	ANC	SECONDARY NO.	J/K	SPAN	WIRE	FINISHED GRADE ELEVATION	REMARKS
(W)	262+08, 34.1RT	2330-A3-9	153	2330-A3-8	65-2	--	--	--	--	--	--	1	E3	12	1	F5	--	--	--	--	--	RETAIN TOP (1) DOWN GUY AND (1) ANCHOR. REPLACE BOTTOM DOWN GUY WITH SIDEWALK GUY. MAINTAIN 1 FOOT MINIMUM CLEARANCE BETWEEN PATH AND DOWN GUY.

LEGEND

- (T) TEMP
- (R) RETIRE
- (N) NEW
- (W) WORK REQUIRED

CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES, KPU, KPU TELEPHONE & GCI, TO MINIMIZE CUSTOMER IMPACTS. TELEPHONE & CATV SYSTEM WORK WILL BE PERFORMED BY THE RESPECTIVE UTILITY.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: B.C. HAICHT

STATE OF ALASKA
B.C. HAICHT
EE 4810
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POWER POLES PLAN & STAKING SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U13	179

M2-11

ITEM	KPU NUMBER	QTY	DESCRIPTION
ai	16566	1	Rod, ground,7" x 8', JOSLYN: J8338
aj	11520	1	Clamp, ground rod, JOSLYN: J8392
ak	15900	1	Ground wire moulding: JOSLYN: PM128
al	17200	as reqd	Staples, ground wire, JOSLYN: J7682
am	17220	as reqd	Staples, ground moulding, JOSLYN: J6497
cj	19170	80	Ground wire, #4 solid copper or equiv.
dh	16414	1	Butt Plate
p1	13646	2	Connectors, BLACKBURN WR Series 289 (as reqd)

A5-1

ITEM	KPU NUMBER	QTY	DESCRIPTION
d1	18358	2	Washer,2 1/4"x 2 1/4"x 3/16 "x11/16"hole
km	15730	1	Ins, Supen Hether lite H25 KV 7B
o	10690	2	Bolt Eye 5/8 X 14"
p		2	Connectors, as req'd
aa	15690	2	Nut, eye, 5/8 " Joslyn J1092
aq		1	Jumpers and leads, as req'd
cal	11614		Deadend Ass Andreson 2/0 to #2 ADE46N
L2	15760		Inslink 24" Cont'l GCC 15-24R 15,000 lb

G39

ITEM	KPU NUMBER	QTY	DESCRIPTION
an		1	Transformer, 1 Phase Pole Top-kVA as specified
ap	11616	1	Clamp, Hot Line ANDERSON AH-4-GP
aq2		as reqd	#4 Stranded
ax	13926	1	Cutout, 15kV, 100A; CHANCE C710-112PB
c5	10828	3	Bolt, machine 5/8" x 14" (pr as reqd)
d1	18358	3	Washer,2 1/4"
p		as reqd	Connectors, WR Series 189-875 (as reqd)
		1	Modified Nema Bracket

C8-11

ITEM	KPU NUMBER	QTY	DESCRIPTION
o	15634	6	Insulator, pin type, HENDRIX: HPI-15
aa	15690	8	Nut, eye, 5/8"
aq		3	Jumpers, 4/0 copper shot-on w/AMPACT#602007
bs	11726	1	Bracket, JOSLYN: J1300
c2	10770	4	Bolt, machine, 1/2"x8"
c5	10828	2	Bolt, machine, 5/8" x 14" (or as reqd)
com	11610	8	Deadend assm, primary ANDERSON 336-3/0 ADE70N
cm	15670	1	Spool insulator, grey, ANSI: 53-2
d	J1086	4	Washer, 1 3/8"x9/16" hole" hole
d1	18358	14	Washer, 2 1/4"x2 1/4"x2 1/4"x 3/16" hole
d2	j1073	6	Washer, 2"x 2x 1/8" 9/16" hole
f	16120	6	Pin, crossarm, JOSLYN: J211Z
g	10355	2	Crossarm, heavy 5 3/4" x 4 3/4" x10'-0"
h	11180	2	Brace, wood, HUGHES BROS 2045D45-11-13
k	16620	2	Screw, lag 1/2" X4"
km	15730	6	Insulator, suspension:SEDIVER ODI-15-70-28-CT-SIL
n1	10686	4	Bolt, double arming 5/8"x 24" (or as reqd)
o	10690	3	Bolt, eye,5/8"x 10" (or as reqd)
p		30'	Connectors, WR Series 189-875 (as reqd)

C2-2

ITEM	KPU NUMBER	QTY	DESCRIPTION
o	15634	6	Insulator, pin type, HENDRIX: HPI-15
bs	11726	1	Clevis bracket insulator spool-JOSLYN J1300
c2	10770	4	Bolt, machine, 1/2"x8"
c4	10832	2	Bolt, machine, 5/8" x reqd length
cm	15670	1	Spool insulator, JOSLYN J151
d	J1086	4	Washer, 2 1/4"x2 1/4"x2 1/4"x 3/16" x 9/16"hole
d1	18358	15	Washer, 2 1/4"x2 1/4"x2 1/4"x 3/16" x 11/16"hole
f	16120	6	Pin, crossarm, JOSLYN: J211Z
g	10355	2	Crossarm, heavy 5 3/4"x 4 3/4"x10'-0"
h	11180	4	Brace, wood, HUGHES BROS. 2045D45-11-13
k	16620	2	Screw, lag 1/2"X4"
n1	10681	3	Bolt, double arming, 5/8" x 24"
			Lock Nuts as Req

E3

ITEM	KPU NUMBER	QTY	DESCRIPTION
c		2	Bolt,machine,5/8 "x req'd length
d		2	Washer,2 1/4"x2 1/4"x 3/16 "x11/16"hole
u		2	Guy deadend, PREFORMED:AWDE-4122
v		1	Guy attachment
sg		as reqd	Pole Strut, 2" Standard Pipe
j		2	Screw, Lag, 1/2 "x4"
y		as reqd	Guy strand, 16M ALUMOWELD (16000 lbs)
ck		1	Clamp, anchor rod bonding
ek		1	Locknuts, as reqd
gf		1	Pole PLate, JOSLYN: J1501
gf'		1	Clamp End Fitting, JOSLYN: J1502

E2-2

ITEM	KPU NUMBER	QTY	DESCRIPTION
o		2	Bolt, eye, 5/8 x reqd length
d		2	washer, 2 1/4"x 2 1/4"x 3/16"x13/16" hole
			washers as (reqd)
w1		1	Guy Strain Insul. 24" CONTINENTAL GCC16-24R
u		6	Guy deadend, PREFORMED: AWDE-4122
y			Guy strand 16M ALUMOWELD (16000 LBS)
			length as reqd
J		1	Screw lag 1/2 " x 4"
v	15720	1	Porcelaine strain insulator JOSLYN L-289
			and position as (req)
vo		2	5/8 thimble eye nut

UM-5

ITEM	KPU NUMBER	QTY	DESCRIPTION
1			Standoff, ALLUMAFORM as reqd
2			1 GRC, 4"
3		1	Cable grip, OZ GEDNEY: GSBG
4		1	End bushing w/ ground lug
es			Moisture seal, as reqd
j			Screw, lag 1/2 "X4", as reqd

F-5

ITEM	KPU NUMBER	QTY	DESCRIPTION
Z		1	Rock anchor, 2-3/8" dia, rod length as required, A.B. CHANCE, or equal, 72"-R172L, 96"-R196L

E1-2A,B,C

ITEM	MATERIAL	ASSEMBLY UNIT E1-2A NO. REQD	E1-2B NO. REQD	E1-2C NO. REQD
c	Bolt, machine, 5/8" x reqd length	1	1	1
d	Washer,2 1/4"X2 1/4" X 3/16	2	2	2
	X 11/16 hole			
v	Guy plate, Joselyn P488	1	1	1
12.47kv w	Guy strain insulator 24", CONTINENTAL, GCC16-24R(16,000 lbs)	1	2	—
34.5kv	Guy strain insulator 144", CONTINENTAL GCC15-144R(16,000 lbs)	—	—	1
y	Guy strand, 16M ALUMOWELD (16,000 lbs)	AS REQD	AS REQD	AS REQD
u	Guy deadend PREFORMED: AWDE-4122	4	8	4
ck	clamp,anchor rod bonding, CHANCE: G5063 or as reqd	1	1	1

F2-1

ITEM	MATERIAL	NO. REQD
d	Washer, 4" x 4" x 1/2" x 1-1/16" hole	1
x	Rod, anchor, triple eye, 1" x 9'-0"	1
z	Anchor, log (penta treated) 12" dia x 5'-0" length. Holding power in ordinary soil: 16,000 lbs	1

J5-J16

ITEM	MATERIAL	ASSEMBLY UNIT J5 NO. REQD	J10 NO. REQD	J11 NO. REQD	J15 NO. REQD	J16 NO. REQD
c4	Bolt, machine, 5/8 " x reqd length		1	1		3
o	Bolt, eye, 5/8 "x reqd length				1	
d1	Washer, 2 1/4" x 2 1/4" x 3/16" x 11/16" hole	1	1	1	1	3
bs	Bracket Spool Insulator JOSLYN J 1300	1				
cm	Spool insulator, grey, ANSI: 53-2	1	1	1		
da	Bracket, JOSLYN: J1300		1	1		
	Screw, lag 1/2 "X4"		2	2		
dt	Deadend, wedge type				1	

K5-K16

ITEM	MATERIAL	ASSEMBLY UNIT K5 NO. REQD	K10 NO. REQD	K11 NO. REQD	K15 NO. REQD	K16 NO. REQD
c	Bolt, machine, 5/8 " x reqd length	1	2	1	1	3
d	Washer, 2 1/4" x 2 1/4" x 3/16" x 11/16" hole	1	2	1	1	3
cm	Spool insulator, grey, ANSI: 53-2			1		
da	Bracket, JOSLYN: J1300			1		
j	Screw, lag 1/2 "X 4"			2		
dt	Deadend, wedge type		2		1	
fr	Triplex cable support	1	2		1	

NOTE: REFERENCE BILL OF MATERIALS THIS SHEET FOR DETAIL DRAWINGS LISTED IN BILL OF MATERIALS HEADINGS (ABOVE). FOLLOW KPU STANDARDS FOR ALL ITEMS NOT SPECIFICALLY LISTED.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr ARSENARD Date 4-25

BILL OF MATERIALS-LISTED PER DETAIL

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

99-U14.dwg
Tue, 25/Apr/06 12:52PM peggyl
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4500
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

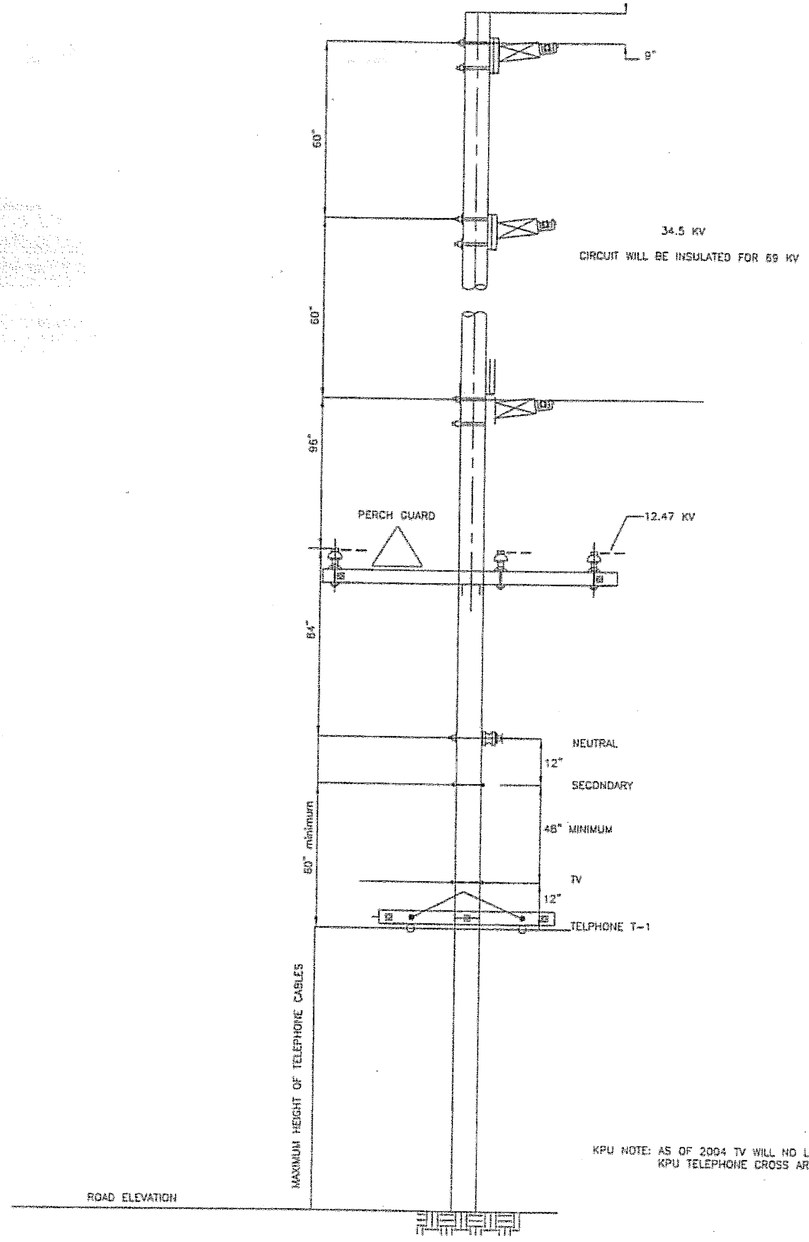
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MATERIALS PER DETAIL

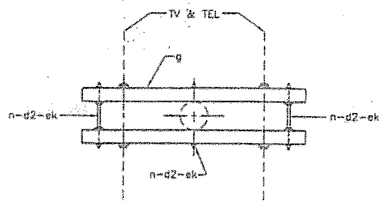
PROJECT DESIGNATION
MGP-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U14	179

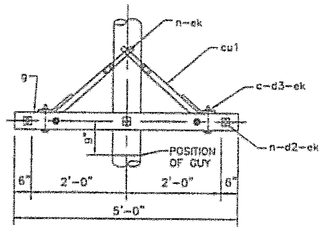


KPU NOTE: AS OF 2004 TV WILL NO LONGER ATTACH ON KPU TELEPHONE CROSS ARM.

POLE FRAMING GUIDE
M20



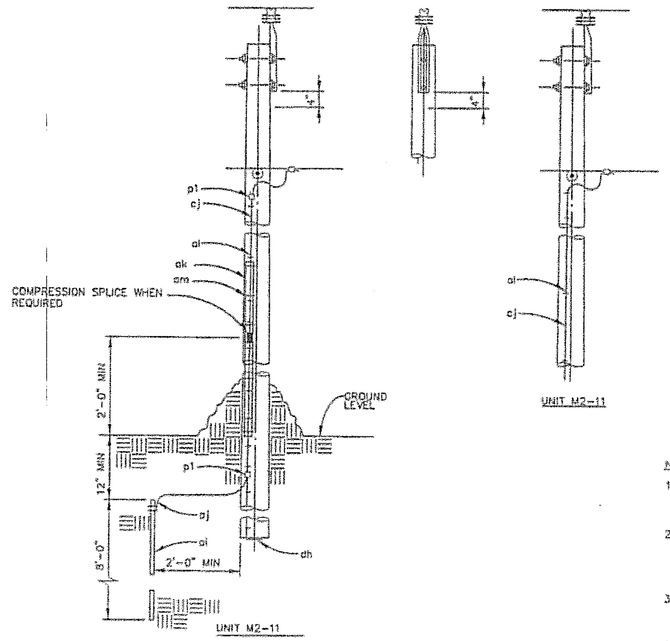
PLAN VIEW



SIDE VIEW

NOTE:
AS OF 2004, TV NO LONGER ATTACHES TO THIS CROSS ARM.

TELEPHONE CROSS ARM STRUCTURE
T-1
(N.I.C)



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. K.SHEPARD Date 4-03

NOTES:

1. GROUND WIRE TO BE LOCATED ON SAME SIDE AS NEUTRAL CONDUCTOR AND IN QUADRANT OPPOSITE CLIMBING SPACE OR POLE TOP PIN.
2. STAPLES ON GROUND WIRE SHALL BE 2'-0" APART, EXCEPT FOR A DISTANCE OF 6'-0" ABOVE GROUND AND 8'-0" FROM TOP OF POLE WHERE THEY SHALL BE 6" APART.
3. GROUND WIRE TO CLEAR ALL HARDWARE BY 2" MINIMUM AND SHALL BE STAPLED TO MAINTAIN THIS POSITION.
4. REFERENCE SHEET U14 FOR BILL OF MATERIALS.

GROUNDING ASSEMBLY
M2-11

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

99-U15.dwg
Tue, 25/Apr/06 12:52PM peggyl
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/HAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

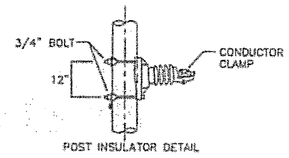
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

POLE DETAILS

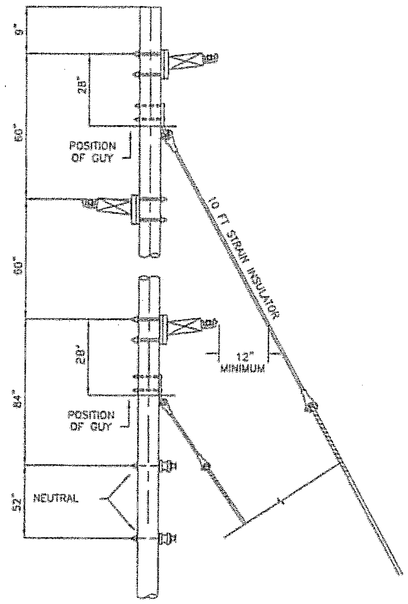
PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U15	179

NOTES:

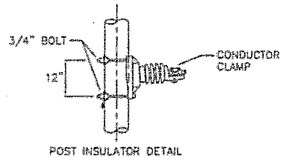
1. REFER TO HC-1 FOR NEUTRAL POSITION.
2. INSULATORS WILL BE RATED FOR 69KV.



POST INSULATOR DETAIL



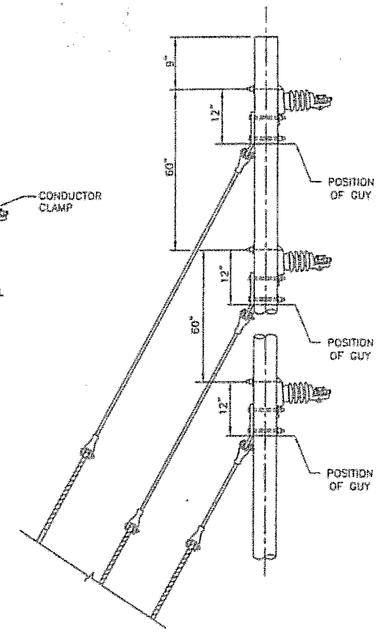
34.5 KV TANGENT POLE
HC-1



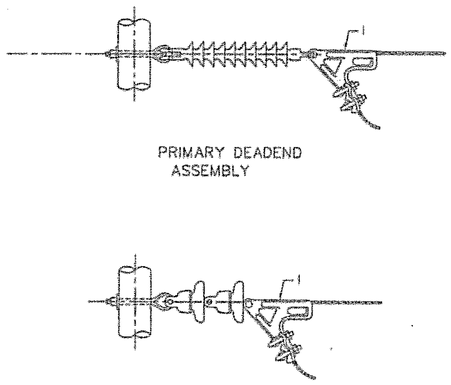
POST INSULATOR DETAIL

NOTES:

1. REFER TO HC-1 FOR NEUTRAL POSITION.
2. INSULATORS WILL BE RATED FOR 69KV.



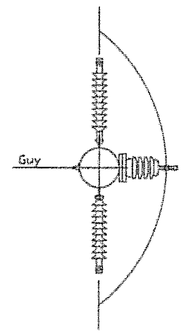
34.5 KV VERTICAL CONSTRUCTION
HC-2



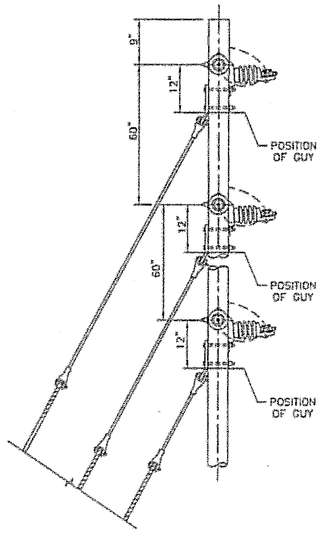
NOTES:

1. ARMOR TAPE WRAPPING TO EXTEND NOT MORE THAN TWO WRAPS BEYOND THE MOUTH OF DEADEND CLAMP.

DEADEND ASSEMBLY GUIDE-LARGE CONDUCTORS
M42-13



PLAN



NOTES:

1. REFER TO HC-1 FOR NEUTRAL POSITION.
2. INSULATORS WILL BE RATED FOR 69KV.
3. DEADEND ASSEMBLIES PER KPU STANDARD PRACTICE.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. _____ Date 4-09

34.5 KV DEAD END CONSTRUCTION (DOUBLE)
HC-5-4

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

99-U16.dwg
Tue, 25/Apr/06 12:52PM peggyl
TAB: Layout1

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4100
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

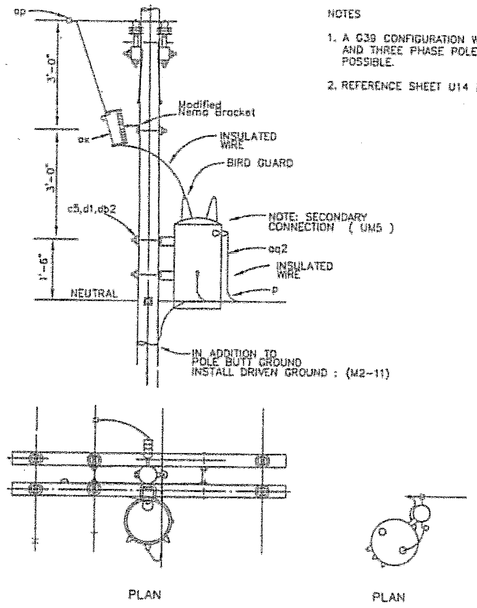
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

69KV 3-PHASE DETAILS

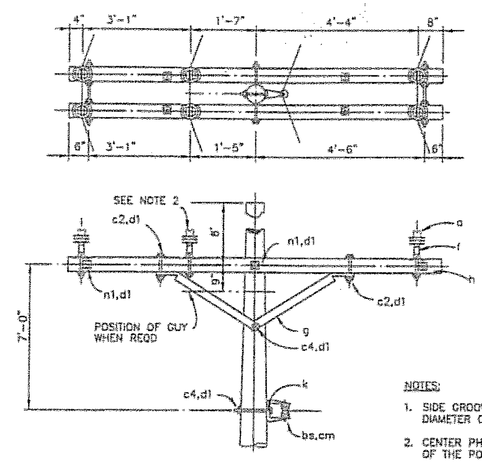
PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U16	179



NOTES

1. A G39 CONFIGURATION WILL BE USED ON SINGLE PHASE AND THREE PHASE POLE CONFIGURATIONS WHEN EVER POSSIBLE.
2. REFERENCE SHEET U14 FOR BILL OF MATERIALS.

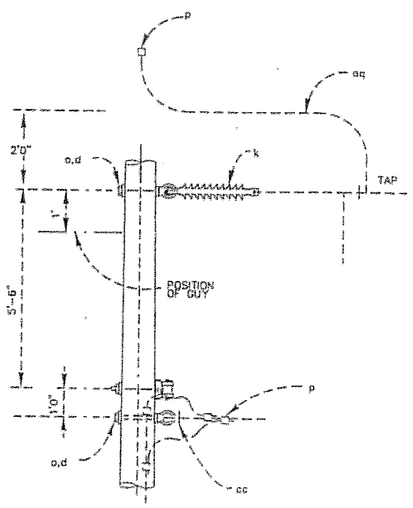
SINGLE PHASE TRANSFORMER AT 1-ø TANGENT
G39



NOTES:

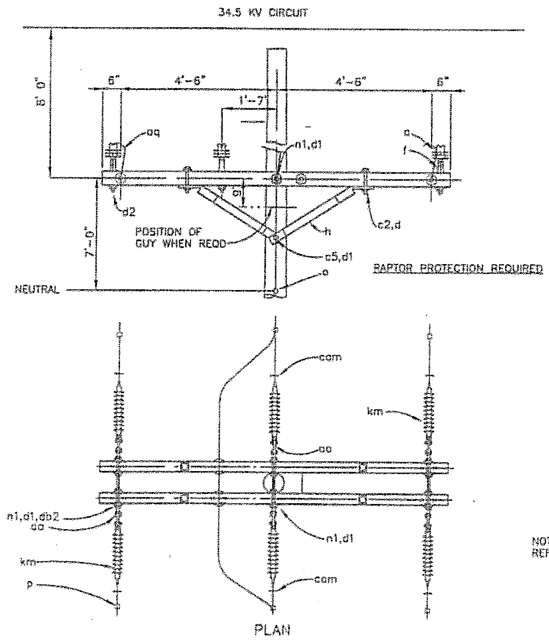
1. SIDE GROOVE OF INSULATOR MUST ALWAYS BE LARGER THAN THE OVERALL DIAMETER OF CONDUCTOR INCLUDING ARMOR RODS WHEN REQUIRED.
2. CENTER PHASE WIRE OR NEUTRAL WIRE SHALL BE LOCATED ON THE OPPOSITE SIDE OF THE POLE WHERE NECESSARY TO AVOID CROSSING OF WIRES IN MIDSPAN.
3. THIS CONSTRUCTION REQUIRED FOR ALL CONDUCTORS HAVING A BREAKING STRENGTH OF MORE THAN 4,500 POUNDS.
4. IF TRANSVERSE LOAD EXCEEDS 2000 LBS/PIN, USE VERTICAL CONSTRUCTION.
5. REFERENCE SHEET U14 FOR BILL OF MATERIALS.

CROSSARM CONSTR. DOUBLE PRIMARY SUPPORT (LARGE CONDUCTORS, 5-30 DEGREE ANGLE)
C2-2



NOTE: REFERENCE SHEET U14 FOR BILL OF MATERIALS

SINGLE PHASE TAP
A5-1



NOTE:
REFERENCE SHEET U14 FOR BILL OF MATERIALS

CROSSARM CONSTRUCTION DEADEND (DOUBLE)
C8-11

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEMAD Date 4-09

PATH:

99-U17.dwg
Tue, 25/Apr/06 12:53PM psggyl
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4809
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

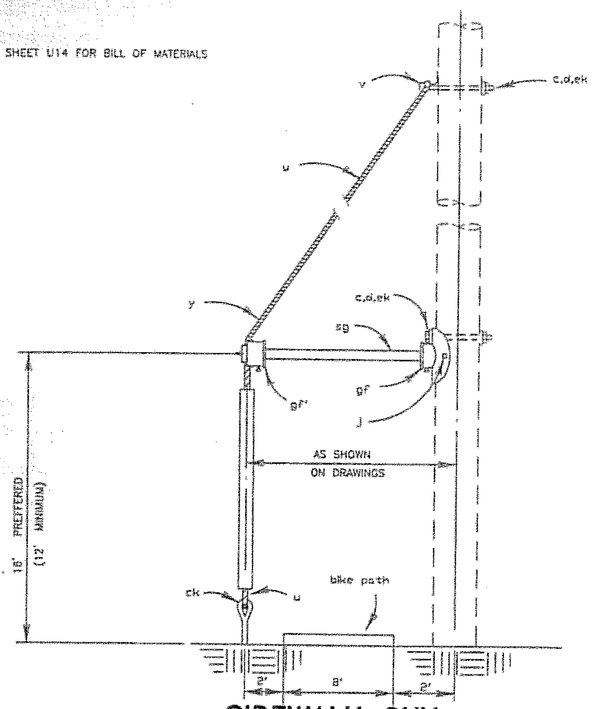
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

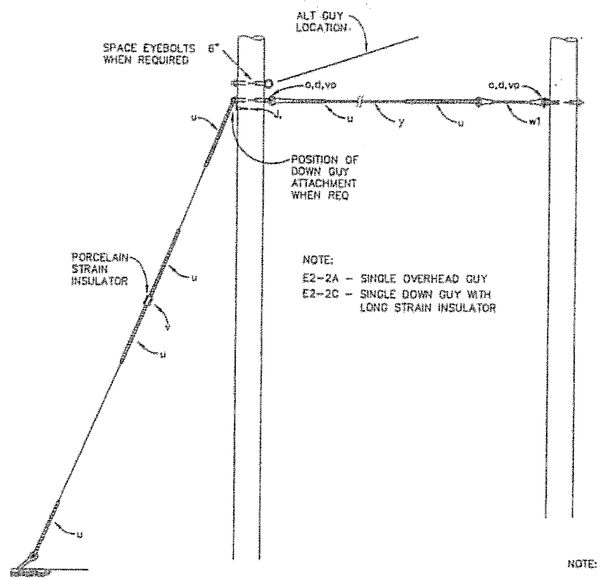
12.5/7.2KV 3-PHASE DETAILS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U17	179

NOTE: REFERENCE SHEET U14 FOR BILL OF MATERIALS



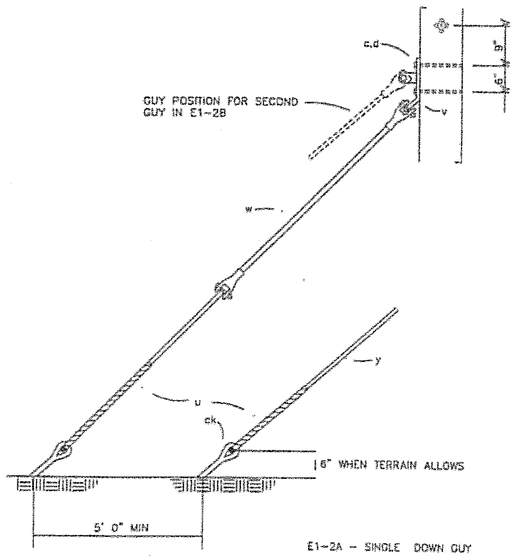
SIDEWALK GUY
E3



NOTE:
E2-2A – SINGLE OVERHEAD GUY
E2-2C – SINGLE DOWN GUY WITH LONG STRAIN INSULATOR

NOTE: REFERENCE SHEET U14 FOR BILL OF MATERIALS

OVERHEAD GUY
E2-2



E1-2A – SINGLE DOWN GUY
E1-2B – DOUBLE DOWN GUY
E1-2C – SINGLE DOWN GUY WITH LONG GUY STRAIN INSULATOR

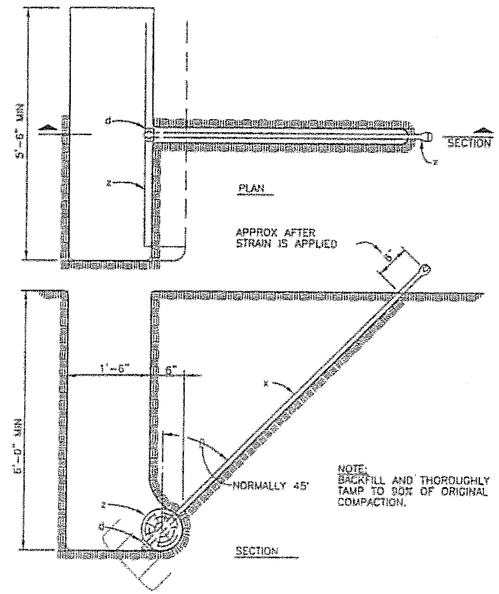
KPU NOTE:

PLACE PORCELAIN GUY STRAIN INSULATOR AS (REQ) REFER TO A2-2.

NOTES:

1. WHEN TWO GUYS ARE ATTACHED TO ONE ANCHOR ROD, USE F1-3 OR LARGER ANCHOR.
2. SPACING BETWEEN ANCHORS SHALL BE SUFFICIENT TO PROVIDE MAXIMUM HOLDING POWER OF EACH ANCHOR.
3. FOR LOOSE SOILS, CONCRETE OR OTHER POLE FOOTINGS ARE RECOMMENDED.
4. OTHER ACCEPTED AND EQUIVALENT (ITEM U) DEADEND MATERIAL MAY BE SUBSTITUTED FOR AUTOMATIC DEADEND SHOWN.
5. REFERENCE SHEET U14 FOR BILL OF MATERIALS.

DOWN GUY ASSEMBLIES
E1-2A, E1-2B, E1-2C



LOG ANCHOR ASSEMBLY
F2-1

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date 4-05

PATH:
99-U18.dwg
Tue, 25/Apr/06 12:53PM peggyl
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

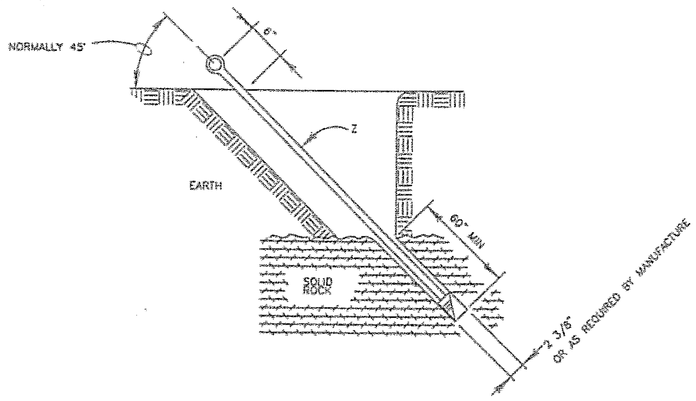
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

12.5/7.2KV
1-PHASE DETAILS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U18	179



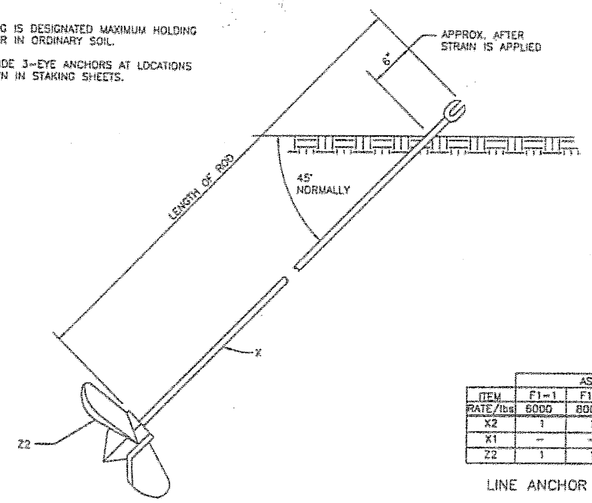
NOTES:

1. DRILLED HOLE TO BE GROUTED ENTIRE LENGTH ABOVE ANCHOR WITH SPEED SET ANCHORING AND PATCHING CEMENT OR EQUAL.
2. BACKFILL AND THOROUGHLY TAMP TO 90% OF ORIGINAL COMPACTION.
3. "X" DIMENSION: 5'-0" IN SOLID ROCK.
4. REFERENCE SHEET U14 FOR BILL OF MATERIALS.
5. PROVIDE 3-EYE ANCHORS AT LOCATIONS SHOWN IN STAKING SHEETS.

ROCK ANCHOR ASSEMBLY
F5

NOTE:

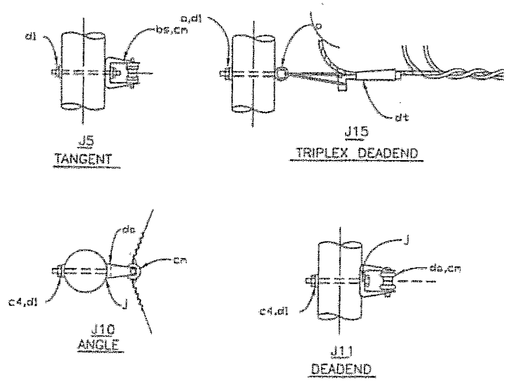
1. RATING IS DESIGNATED MAXIMUM HOLDING POWER IN ORDINARY SOIL.
2. PROVIDE 3-EYE ANCHORS AT LOCATIONS SHOWN IN STAKING SHEETS.



ITEM	ASSEMBLY UNIT F1-1	F1-2	F1-3	F1-4
RATE/lbs	6000	8000	10,000	12,000
X2	1	1	–	–
X1	–	–	1	1
Z2	1	1	1	1

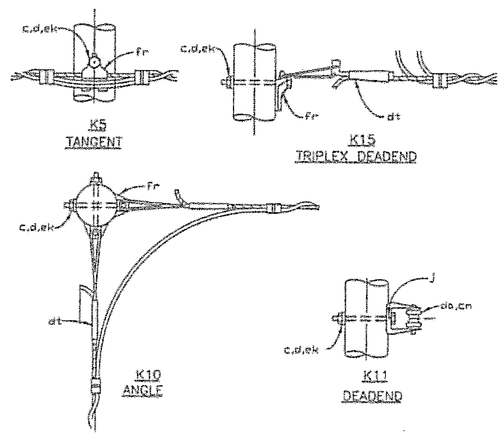
LINE ANCHOR ASSEMBLIES

SCREW ANCHOR
F1-1S, F1-2S, F1-3S, F1-4S



NOTE: REFERENCE SHEET U14 FOR BILL OF MATERIALS

SECONDARY ASSEMBLIES
J5 TO J16



NOTE: REFERENCE SHEET U14 FOR BILL OF MATERIALS

SERVICE ASSEMBLIES
K5 TO K16

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEARD Date 4-09

PATH:

99-U19.dwg
Tue, 25/Apr/06 12:53PM peggyl
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

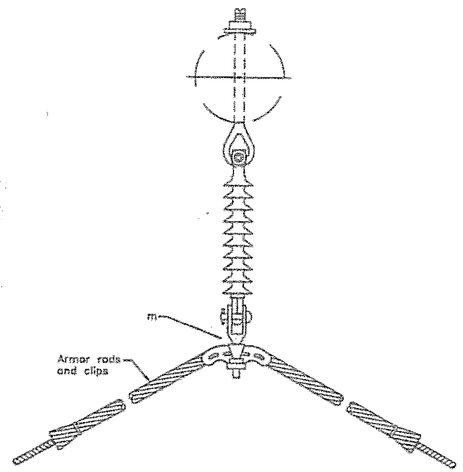
DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

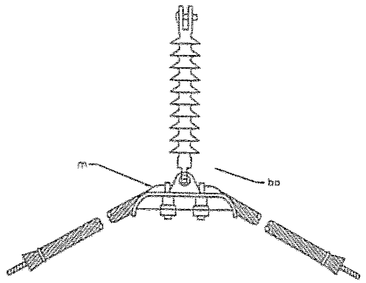
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

12.5/7.2KV 1-PHASE DETAILS

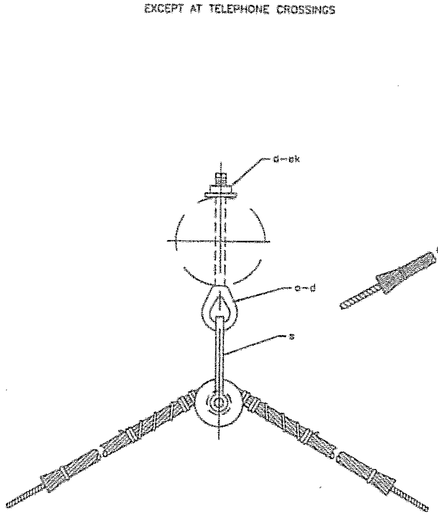
PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U19	179



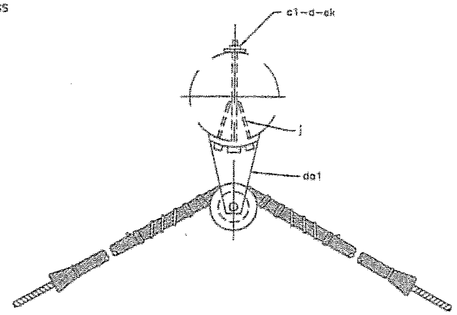
PRIMARY ANGLE
ASSEMBLY "cd"
EXCEPT AT TELEPHONE CROSSINGS



FOR TELEPHONE CROSSING ANGLE
ASSEMBLY "cd"
WITH 2-BOLT SUSPENSION CLAMP

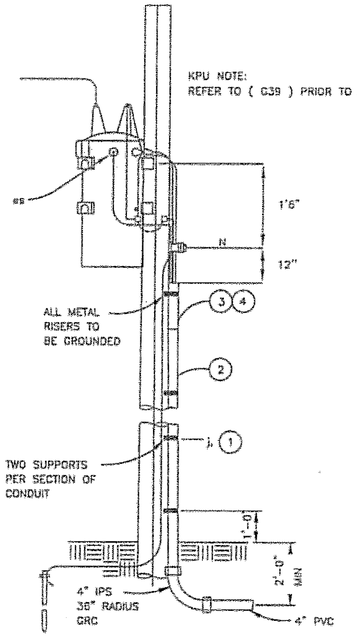


NEUTRAL SECONDARY ANGLE
ASSEMBLY "ce"



NEUTRAL SECONDARY
ASSEMBLY "ce"

ANGLE ASSEMBLY GUIDE, VERTICAL CONSTRUCTION 30° TO 60°, ACSR CONDUCTOR W/STRAIGHT OR FORMED TYPE ARMOR RODS
M41-10



NOTES:

1. SEAL SECONDARY CABLES TO PREVENT ENTRANCE OF MOISTURE AT TRANSFORMER TERMINALS.
2. PACK CONDUIT TOP WITH DUCT SEAL TO PREVENT ENTRANCE OF MOISTURE.
3. INSTALL WEATHERHEAD AT SERVICE LOCATIONS.
4. REFERENCE SHEET U14 FOR BILL OF MATERIALS.

SECONDARY RISER ASSEMBLY
UM5

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. AKSHAND Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

99-U20.dwg
Tue, 25/Apr/06 12:54PM peggyi
TAB: Layout1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: B.C. HAIGHT

STATE OF ALASKA
B.C. HAIGHT
EE 4800
REGISTERED PROFESSIONAL ENGINEER
25 APRIL 2006

DESIGNED BY: M.A. HANSEN

DRAWN BY: RLG/MAH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

POWER POLES
PLAN & STAKING
SHEETS

PROJECT DESIGNATION	
MGP-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
U20	179

WATER SERVICES [627(1A), 627(1B), 627 1(C), 626(9)]

STATION	ELEV.	SIZE	CROSSING SIDE	COMMENTS
163+97.95	NO DATA	1"	MTN	EXTEND EXISTING SERVICE1
164+ 43	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
164+ 66	NO DATA	2"	MTN	
164+66	NO DATA	1"	OCEAN	
165+89.46	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
166 +75	25.44	1"	MTN	
166+87.25	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
168+77	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
169+27	24.81	1"	MTN	
169+25	24.57	1"	MTN	
168+87	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
~~170+11.19~~	~~NO DATA~~	~~1"~~	~~OCEAN~~	~~REQUIRES CONNECTION TO MAIN~~
170+31.39	26.47	1"	MTN	
170+72.18	27.67	1"	OCEAN	
170+20	28.09	1"	MTN	
171+43.49	27.23	1"	MTN	
172+17.80	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
173+13.13	28.94	1"	MTN	
173+73.91	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
174+69.01	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
176+93.86	28.15	1"	MTN	
177+ 61	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
177+ 62	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
178+00	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
182+99.84	36.15	1"	OCEAN	
183+93.30	43.01	1"	MTN	
184+33.55	NO DATA	1"	MTN	
184+ 61	46.57	1"	OCEAN	
185+ 94	50.14	1"	OCEAN	
185+ 51	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
186+10.03	52.22	1"	OCEAN	
186+32.56	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
187+30.04	56.08	1"	OCEAN	
187+32.60	56.16	1"	MTN	
188+45.51	57.84	1"	OCEAN	
188+47.34	57.84	1"	MTN	
189+66.82	58.95	1"	MTN	
190+39.61	58.50	1"	MTN	
190+72.71	NO DATA	1"	OCEAN	
190+86.24	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
191+58.16	57.46	1"	OCEAN	
193+64.50	48.83	1"	OCEAN	
193+65.12	48.87	1"	OCEAN	
198+60	29.83	1"	OCEAN	
200+05.97	26.62	1"	OCEAN	
200+50.65	26.63	1"	OCEAN	
201+18.63	26.71	1"	OCEAN	
202+35.97	27.61	1"	OCEAN	
202+71.60	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
203+79.57	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
205+46.72	27.84	2"	MTN	
215+16.57	39.15	1"	OCEAN	
215+22.74	NO DATA	1"	MTN	REQUIRES CONNECTION TO MAIN
215+82.65	40.31	1"	OCEAN	
217+37.43	44.44	1"	OCEAN	
219+ 61	45.38	1"	OCEAN	
220+73.89	NO DATA	1"	OCEAN	REQUIRES CONNECTION TO MAIN
221+22.27	NO DATA	6"	MTN	REMOVE HYDRANT
222+ 17	40.17	1"	OCEAN	
223+07.15	37.26	1"	OCEAN	

WATER SERVICES (CONT.)

STATION	ELEV.	SIZE	CROSSING SIDE	COMMENTS
223+86.18	35.52	1"	OCEAN	
225+46.04	32.29	1"	OCEAN	
227+66.14	31±	1"	OCEAN	
228+ 00		1"	MTN	REQUIRES CONNECTION TO MAIN
229+15.56		1"	OCEAN	
230+02.45	32.30	1"	OCEAN	
230+61.56	31.70	1"	OCEAN	REQUIRES CONNECTION TO MAIN
235+22.52	34.30	1"	OCEAN	
236+36.67	33.07	1"	OCEAN	
237+ 75		1"	OCEAN	
240+09.44		1"	OCEAN	
241+04.04		1"	OCEAN	

CONTINUED ON SHEET W10 ↑

INSTALL WATER METER BOXES ON EXISTING WATER SERVICES [627(10)]

STATION	OFFSET	SIZE	COMMENTS
~~238+32~~	~~40' RT~~	~~1"~~	~~INSTALL METER BOX ON EXISTING~~
~~239+37~~	~~40' RT~~	~~1"~~	~~INSTALL METER BOX ON EXISTING~~

NOT USED ←

WATERLINE RELOCATION
627(8)

BEGIN STA	END STA	LENGTH	COMMENTS
203+63	204+75	112.0	Relocate above proposed culvert

AIR RELIEF STRUCTURE RELOCATION
625(3), 627(4)

FROM STA	OFFSET	TO STA	OFFSET	COMMENTS
189+50	28' RT	189+47	30' RT	ROTATE CONE 180° (sewer)
219+30	RT			MOVE ENCLOSURE
219+45	8' RT	219+25	30' RT	MOVE ENCLOSURE

WATER SERVICE VALVE BOX ADJUSTMENT
627(5)

STATION	OFFSET	COMMENTS
~~234+80~~	~~14' RT~~	~~Adjust to finished grade~~ ITEM NOT USED

VALVE BOX ADJUSTMENT
625(4), 627(2)

STATION	OFFSET	TYPE	NEW RIM ELEV.	
162+75	LEFT	WATER VALVE	33.55	
163+95	RIGHT	WATER VALVE	32.67	
~~164+00~~	~~LEFT~~	~~WATER VALVE~~	~~31.59~~	NOT LOCATED
221+65	RT	SEWER VALVE		
171+30	LEFT	WATER VALVE	32.33	
180+31±	LEFT	WATER VALVE		
182+60	LEFT	WATER VALVE	40.46	
182+65	LEFT	WATER VALVE	40.59	
182+65	LEFT	WATER VALVE	39.36	
189+52	LEFT	WATER VALVE	62.71	
189+54	LEFT	WATER VALVE	62.29	
202+60	RIGHT	SEWER VALVE	32.19	
202+61	RIGHT	SEWER VALVE	32.19	
203+27	LEFT	WATER VALVE	32.29	
203+30	LEFT	WATER VALVE	32.34	
203+33	LEFT	WATER VALVE	32.27	
205+25	LEFT	WATER VALVE	32.28	
207+50	RIGHT	WATER VALVE	36.16	
210+38	165' LT	WATER VALVE		
221+30	LEFT	WATER VALVE	46.70	
~~221+85~~	~~LEFT~~	~~WATER VALVE~~	~~45.63~~	NOT LOCATED
~~238+30~~	~~LEFT~~	~~WATER VALVE~~	~~36.62~~	NOT LOCATED
241+60	LEFT	WATER VALVE	32.53	

HYDRANT RELOCATION
627(3)

STATION	EXIST. OFFSET	NEW OFFSET
163+25.21	20' LT	25.37' LT
166+91.16	17.7' LT	27.37' LT
171+21.15	20.4' LT	27.85' LT
176+51.01	22' LT	27.70' LT
182+38.73	22' LT	29.52' LT
189+64.63	5.7' RT	29.82' RT
198+25	' LT	RELOCATE RT
221+23.87	16.3' LT	23.00' LT
226+82.55	20' LT	25.50' LT
231+27.77	21' LT	25.00' LT
236+31.24	21.4' LT	25.00' LT
241+53.50	20.4' LT	25.00' LT

RIGID BOARD INSULATION
627(7)

START STATION	END STATION	THICKNESS
183+82	185+76	4"
186+10	186+98	4"
~~189+19~~	~~189+66~~	~~4"~~
~~204+20~~	~~205+00~~	~~4" T & B~~
228+90	232+37	4"

REMOVE EXISTING WWTP
626(6)

ADDRESS	STATION	COMMENTS
3255	166+00±	
3603	184+00±	
3617	184+50	
3635	185+20	
3657	187+00	
3683	187+30±	
3705	189+30	
3725	190+40	
3315	168+82	
3333	169+00	

SEWER MANHOLE ADJUSTMENT / RECONSTRUCTION
626(2), 626(10)

STATION	OFFSET	EXIST. RIM ELEV.	NEW RIM ELEV.	RAISE/RECONSTRUCT
168+37	19' RT	27.57	29.37	RECONSTRUCT
169+68	20' RT	25.27	28.18	RECONSTRUCT
171+50	22' RT	30.16	30.73	RAISE
173+54	23' RT	30.96	31.82	RAISE
176+75	' RT			RAISE
176+64	25' RT	29.77	30.66	RAISE
179+74	27' RT	31.61	33.58	RECONSTRUCT
182+90	23' RT	35.51	41.77	RECONSTRUCT
185+87	23' RT	54.55	55.43	RAISE
189+44	15' RT	61.90	62.23	RECONSTRUCT
189+46	18' RT	61.90	62.23	RAISE
191+52	24' RT	57.35	~~60.15~~ 58.95	RECONSTRUCT
202+58	25' RT	28.01	31.49	RECONSTRUCT
203+19	33' LT	30.23	31.60	RECONSTRUCT

SEWER CLEANOUT ADJUSTMENT
626(5)

STATION	OFFSET	COMMENTS
202+29	29' RT	Adjust to finished grade
203+80	30' RT	Adjust to finished grade

180+19 58' RT ADJUST TO FINISH GRADE, ROTARY BEACH REST ROOM

PRESSURE SEWER SERVICES
626(1B), 626(1C), 626(8)

STATION	SIZE	COMMENTS
206+35	4"	REQUIRES NEW SADDLE ON EXISTING
215+ 45	1-1/4"	REQUIRES NEW SADDLE ON EXISTING
221+ 34	4"	REQUIRES NEW SADDLE ON EXISTING
227+87	1-1/4"	

CONTINUED ON SHEET W10

GRAVITY SEWER SERVICES
626(1A), 626(1B), 626(7)

STATION	ELEV.	SIZE	CROSSING SIDE	COMMENTS
162+65.6	NO DATA	4"	MTN	CUT IN TO EXISTING MAIN
~~163+87.1~~ 163+86		4"	MTN	CUT IN TO EXISTING MAIN
~~165+79~~ 166+86		4"	MTN	CUT IN TO EXISTING MANHOLE
~~168+82.47~~ 168+83		4"	MTN	REQUIRES 6"x4" REDUCER
~~169+89.5~~ 169+35		4"	MTN	CUT IN TO EXISTING MAIN
170+22.95		4"	MTN	
~~170+95.33~~ 170+91		4"	MTN	CUT IN TO EXISTING MAIN
~~171+14.55~~ 171+12		4"	MTN	REQUIRES 6"x4" REDUCER
171+48.0		4"	MTN	CONNECT TO MH, CORE DRILL
~~172+25.24~~ 172+24		4"	MTN	
172+99.78		4"	MTN	
174+15.00	24.73	6"	MTN	REQUIRES 6"x4" REDUCER
174+~~42.56~~ 43	NO DATA	4"	MTN	CUT IN TO EXISTING MAIN
176+~~87.47~~ 88	26.12	4"	MTN	
177+59.95	26.54	4"	MTN	
177+93.19	NO DATA	4"	MTN	CUT IN TO EXISTING MAIN
178+56.15		4"	MTN	
~~183+98.4~~ 183+96		4"	MTN	
~~184+19.24~~ 184+18		4"	MTN	
185+44.57	47.43	4"	MTN	
186+41.61	NO DATA	4"	MTN	
187+37.54	54.73	4"	MTN	
188+27.28	55.62	4"	MTN	
189+~~40.31~~ 39.2	NO DATA	4"	MTN	
190+~~28.35~~ 29.4	NO DATA	4"	MTN	CUT IN TO EXISTING MAIN
190+44.~~85~~ 4	NO DATA	4"	MTN	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

TAB: W1

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-09

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA 49th TREVOR SANDE CE 9778 REGISTERED PROFESSIONAL ENGINEER 4/26/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

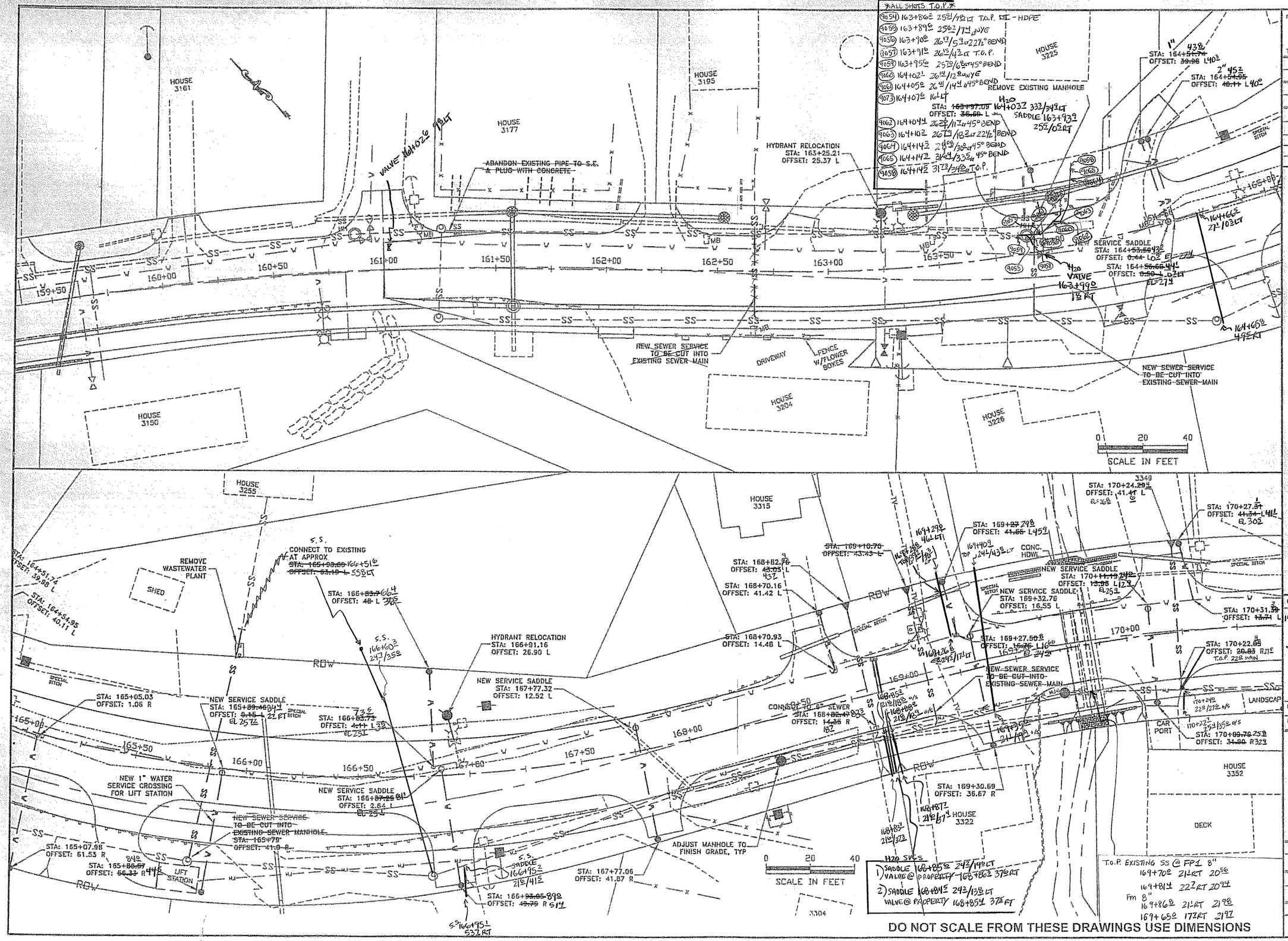
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W1	179



PATH:

TAB: W2

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA 49th ARMY MATE TREVOR SANDE CE 9778 REGISTERED PROFESSIONAL ENGINEER 4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W2	179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ARSANDO Date 4-09

PATH:

TAB: W3

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEPARD Date 4-06

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA 49th TREVOR SANDE CE 9778 REGISTERED PROFESSIONAL ENGINEER 4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

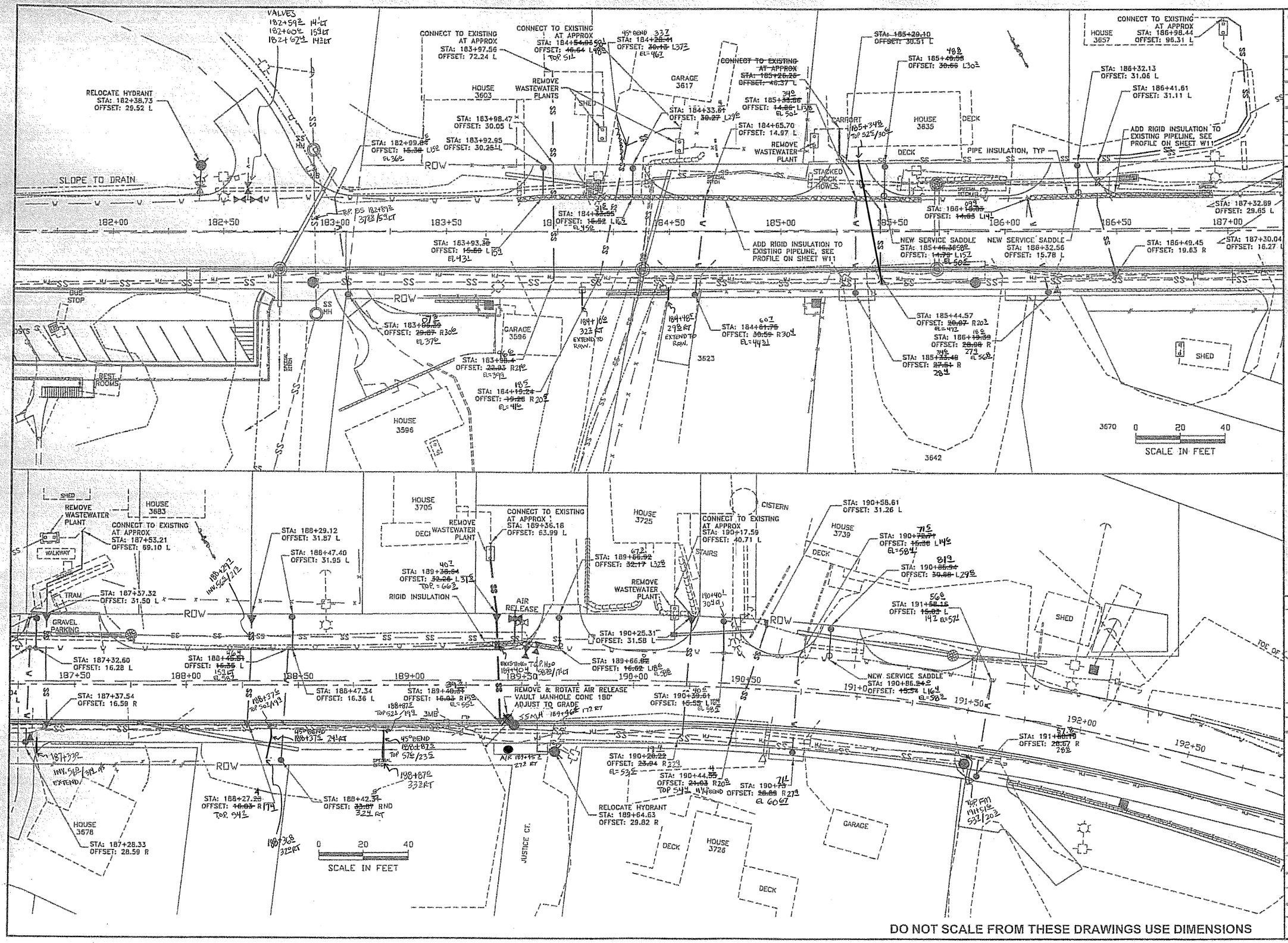
PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
W3	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



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TAB: W4

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

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Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHENAS Date 4-01

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA 49th TREVOR SANDE CE 9778 REGISTERED PROFESSIONAL ENGINEER 4/29/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W4	179

PATH:

TAB: W5

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

EXISTING OLD ROAD

STA: 193+~~84.50~~ 66Ø
OFFSET: ~~0.43~~ L 6Ø RT
EL=~~189~~

STA: 193+~~85.12~~ 67Ø
OFFSET: ~~8.34~~ C 19 LT
EL=486

ROW

193+00 193+50 194+00 194+50 195+00 195+50 196+00 196+50 197+00 197+50 198+00 198+50

STA: 193+~~56.88~~ 59Ø
OFFSET: ~~43.73~~ R

STA: 193+~~55.97~~ 57Ø
OFFSET: ~~43.16~~ R
45Ø
EL= 512

0 20 40
SCALE IN FEET

ROW

VALVES 203+28Ø 14 LT
203+29Ø 13 LT

202+71Ø
47 LT

COMPRESSION STATION

NEW 1" WATER SERVICE CROSSING FOR LIFT STATION

NEW SERVICE SADDLE
STA: 202+~~71.60~~ 69
OFFSET: ~~16.12~~ L 15Ø
EL= 2671

NEW SERVICE SADDLE
STA: 203+~~79.57~~ 78Ø
OFFSET: ~~7.34~~ L 7Ø

SHED

HOUSE 3993

STA: 202+~~35.57~~ 355Ø
OFFSET: ~~13.82~~ L
11Ø

STA: 201+~~18.83~~ 2Ø
OFFSET: ~~1.97~~ L 2Ø
EL= 279

STA: 200+~~95.67~~ 06 L
OFFSET: ~~20.24~~ R 17Ø

STA: 200+~~56.65~~ 4Ø8
OFFSET: ~~15.60~~ R
EL= 2671

QUARRY

198+50 199+00 199+50 200+00 200+50 201+00 201+50 202+00 202+50 203+00 203+50 204+00

STA: 198+~~51.15~~
OFFSET: ~~57.41~~ R58Ø

STA: 201+~~26.54~~ 5Ø
OFFSET: ~~54.68~~ L R

ADJUST CLEANOUT TO FINISH GRADE
202+2Ø
29 RT

STA: 202+~~38.05~~ 4Ø8
OFFSET: ~~39.04~~ R
37Ø

GARAGE

SHED

ADJUST CLEANOUT TO FINISH GRADE

HOUSE 3986

STA: 203+~~82.15~~ 792
OFFSET: ~~48.78~~ R
44Ø

HOUSE 4000

HOUSE 3974

HOUSE 3988

HOUSE 3930

BRICK WALL

STA: 200+~~95.57~~ 4
OFFSET: ~~82.77~~ R
6Ø

STA: 200+05.~~54~~ 7
OFFSET: 80.~~63~~ R
1Ø

STA: 198+60
OFFSET: 112.88 R

SPECIAL DITCH

0 20 40
SCALE IN FEET

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKStevens Date 4-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

160+00 165+00 170+00 175+00 180+00 185+00 190+00 195+00 200+00 205+00 210+00 215+00 220+00 225+00 230+00 235+00 240+00 245+00 250+00 255+00 260+00 265+00 270+00 275+00 280+00 284+50

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER
4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
W5	179

FLANGE 204+21 TOP 25.1/11 LT 204+72 TOP 25.1/5.4 LT

CONTRACTOR SHALL CONSTRUCT TEMPORARY BYPASS DURING CONSTRUCTION OF CULVERT. EXISTING PIPE HAS FLANGED SECTIONS AT STATIONS ~~204+19~~ AND ~~204+85~~ ALLOWING A 40' SECTION TO BE REMOVED. INSTALL TEMPORARY 12"x8" FL TEES ON EACH END, FL GATE VALVES ON EACH TEE. CONNECT TEMPORARY BYPASS PIPELINE AS NECESSARY TO FACILITATE CONSTRUCTION. REMOVE PIPE AFTER CONSTRUCTION, CLOSE VALVES, AND INSTALL BLIND FLANGES ON VALVES PRIOR TO BACKFILLING.

OUT OF R/W USE
~~HYDRANT RELOCATION~~
~~STA: 205+39.37~~
~~OFFSET: 33.64 L~~

O_{2-S5}^{CO} NEW 4" HDPE PRESSURE SERVICE
STA: 205+35.55
OFFSET: ~~34.97~~ L342
TOS EL= 27.2
NEW SERVICE SADDLE ON MAIN

STA: 205+46.13
OFFSET: 34.10 L
NEW 2" SERVICE

STA: 206+46.72
OFFSET: 12.18 L

EXISTING 6" SERVICE

ROW

HOUSE 4000

HOUSE #4056

ROCK WALL

STAIRS

EXISTING SEWER

0 20 40
SCALE IN FEET

204+00 204+50 205+00 205+50 206+00 206+50 207+00 207+50 208+00 208+50 209+00 209+50 210+00 210+50 211+00 211+50 212+00 212+50 213+00 213+50 214+00 214+50 215+00

0 20 40
SCALE IN FEET

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

TAB: W6

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

160+00 165+00 170+00 175+00 180+00 185+00 190+00 195+00 200+00 205+00 210+00 215+00 220+00 225+00 230+00 235+00 240+00 260+00 265+00 270+00 275+00 280+00 284+50

PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEARD Date 4-20

CHECKED BY: T. SANDE

STATE OF ALASKA 49th TREVOR SANDE CE 9776 REGISTERED PROFESSIONAL ENGINEER 4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

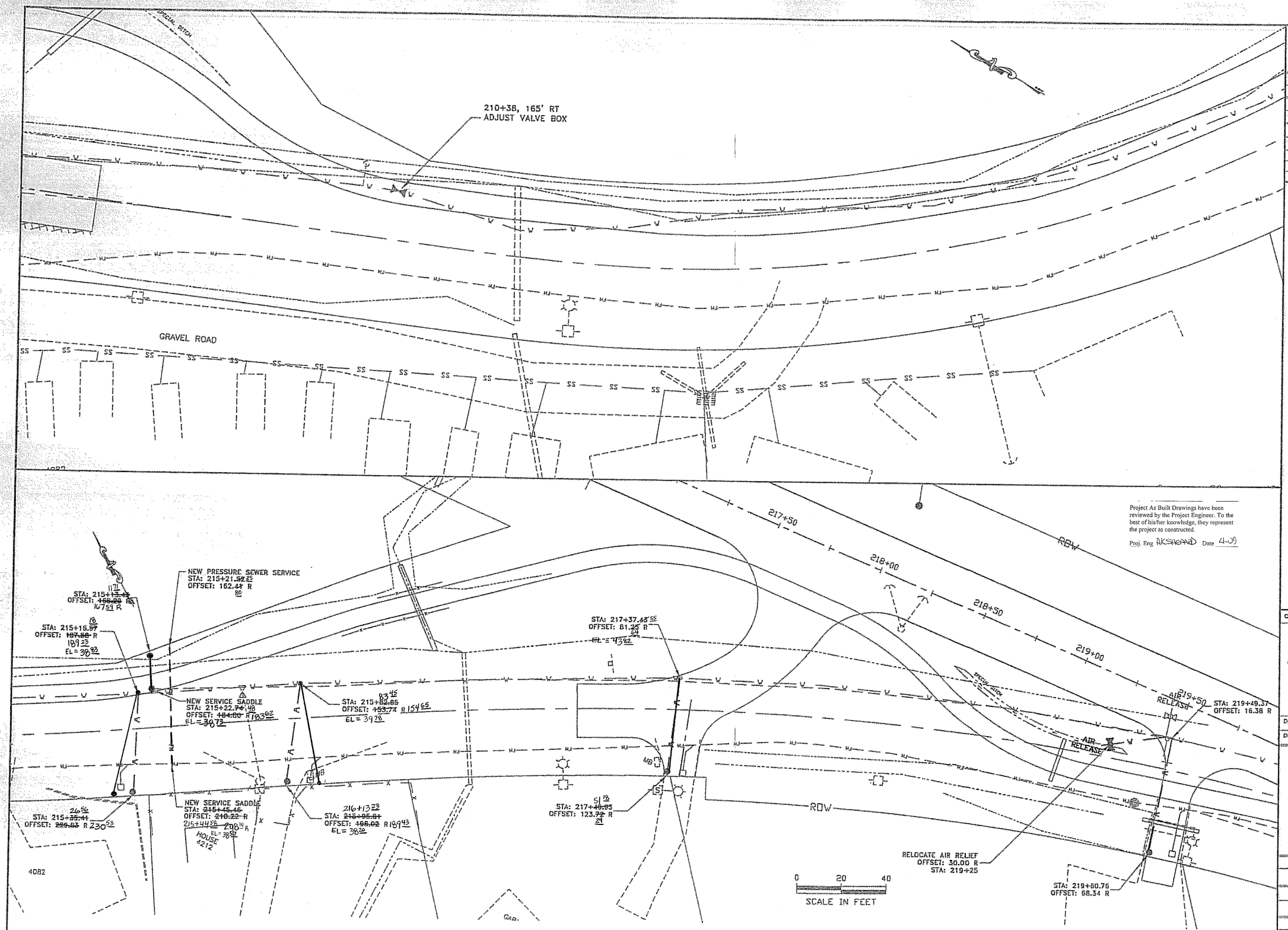
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69082/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W6	179



PATH:

TAB: W7

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

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165+00
170+00
175+00
180+00
185+00
190+00
195+00
200+00
205+00
210+00
215+00
220+00
225+00
230+00
235+00
240+00
245+00
250+00
255+00
260+00
265+00
270+00
275+00
280+00
284+80

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER
4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER
IMPROVEMENTS

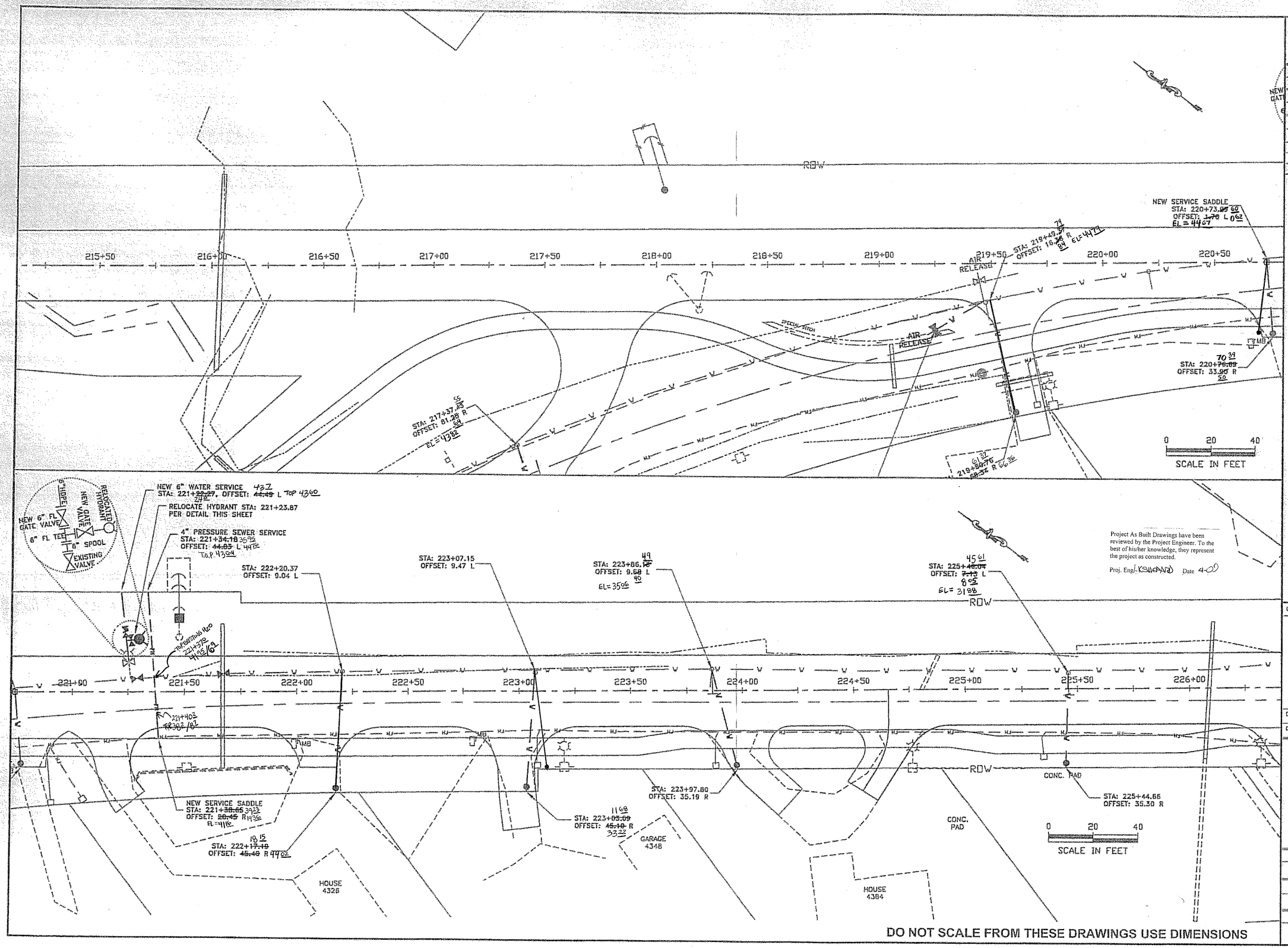
UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W7	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. KSHEPARD Date 4-09

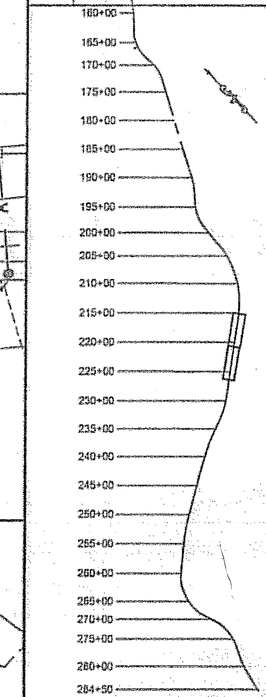
PATH:

TAB: W8

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER
4/10/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

UTILITY CROSSINGS

PROJECT DESIGNATION:

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W8	179

RELOCATE HYDRANT
STA: 226+82.55
OFFSET: 25.5 L

STA: 227+~~66.80~~ 73 05
OFFSET: 33.68 ~~L~~ 66
EL= 30 46

HOUSE 4451

HOUSE 4451A
PRESSURE SEWER
STA: 227+~~87~~ 80 2
OFFSET: 32.67 L

DECK

NEW SERVICE SADDLE
STA: 228+~~28.16~~ 01 82
OFFSET: ~~9.85~~ L
136

STA: 229+15.56
OFFSET: 7.72 L

STA: 230+02.~~45~~ 78
OFFSET: 8.07 L

4" RIGID INSULATION
PER DETAIL 3/W13

NEW SERVICE SADDLE
STA: 230+61.56
OFFSET: 10.59 L

RELOCATE HYDRANT
STA: 231+27.77
OFFSET: 25.00 L

SVC. SADDLE
226+45 28
10 02 L EL= 30 01

ROW

226+50 227+00 227+50 228+00 228+50 229+00 229+50 230+00 230+50 231+00 231+50 232+00

STA: 227+~~65.14~~ 63 93
OFFSET: 10.44 L 38

MB

NEW SADDLE
2" PRESSURE SEWER
227+08 81 2647 R
EL= 29 43

STAIRS

STA: 227+~~86.62~~
OFFSET: 20.05 R

HOUSE 4430

STA: 228+~~29.30~~ 12 70
OFFSET: ~~25.93~~ R
34 93
EL= 32 74

DECK

HOUSE 4488

STA: 229+15.29
OFFSET: 36.05 R

STA: 230+00.76
OFFSET: 34.19 R

CARPORT W/ WOOD DECK

PORCH

STA: 230+~~62.95~~
OFFSET: 42.0 R

HOUSE 4492

0 20 40
SCALE IN FEET

ROW

0 20

ADJUST SERVICE VALVE BOX
TO FINISH GRADE

STA: 235+~~22.52~~ 26
OFFSET: 10.~~64~~ L 27
EL= 33 82

RELOCATE HYDRANT
STA: 236+31.24
OFFSET: 25.00 L

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-07

STA: 236+36.67
OFFSET: 15.42 L

STA: 237+18.15
OFFSET: 15.83 L

ROW

232+00 232+50 233+00 233+50 234+00 234+50 235+00 235+50 236+00 236+50 237+00 237+50

MB

DECK
GREEN HOUSE

WOOD PLATFORM

HOUSE 4592

RETAINING WALL

CONCRETE DAHL WALL

STA: 236+~~33.86~~ 368
OFFSET: ~~33.98~~ R
289

STA: 235+20.78
OFFSET: 32.68 R

OFFSET: 33.24 R
STA: 237+40.78

0 20 40
SCALE IN FEET

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

TAB: W9

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

160+00 165+00 170+00 175+00 180+00 185+00 190+00 195+00 200+00 205+00 210+00 215+00 220+00 225+00 230+00 235+00 240+00 245+00 250+00 255+00 260+00 265+00 270+00 275+00 280+00 284+50

PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER
4/10/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

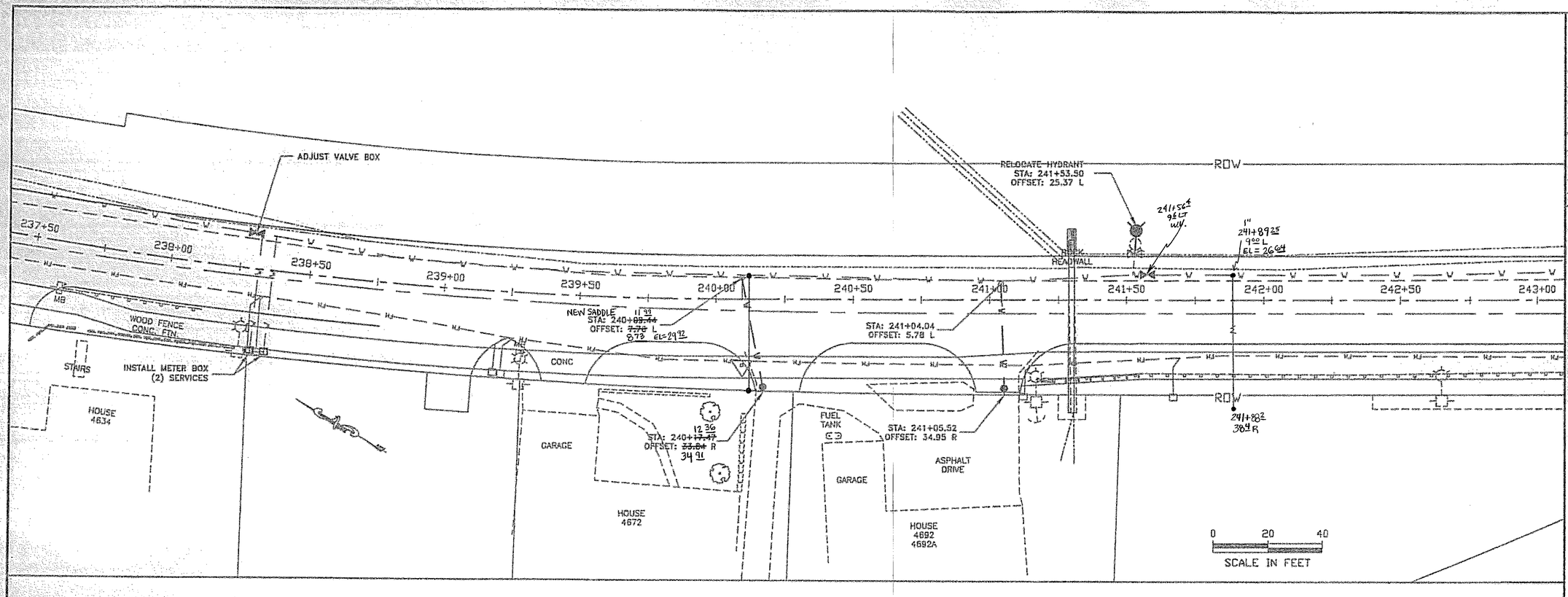
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER IMPROVEMENTS

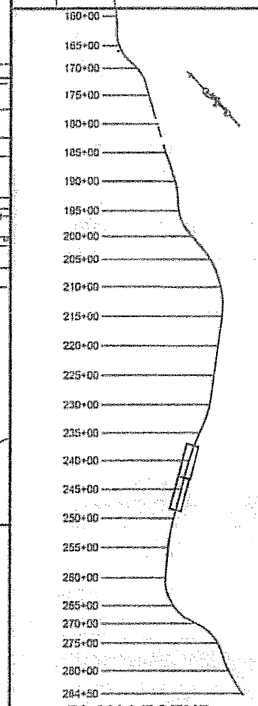
UTILITY CROSSINGS

PROJECT DESIGNATION
RSA 69802/68581

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
W9	179





PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AS SIGNED Date 4-30

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

TAB: W10

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: T. SANDE

STATE OF ALASKA 49th TREVOR SANDE CE 9778 REGISTERED PROFESSIONAL ENGINEER 4/20/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

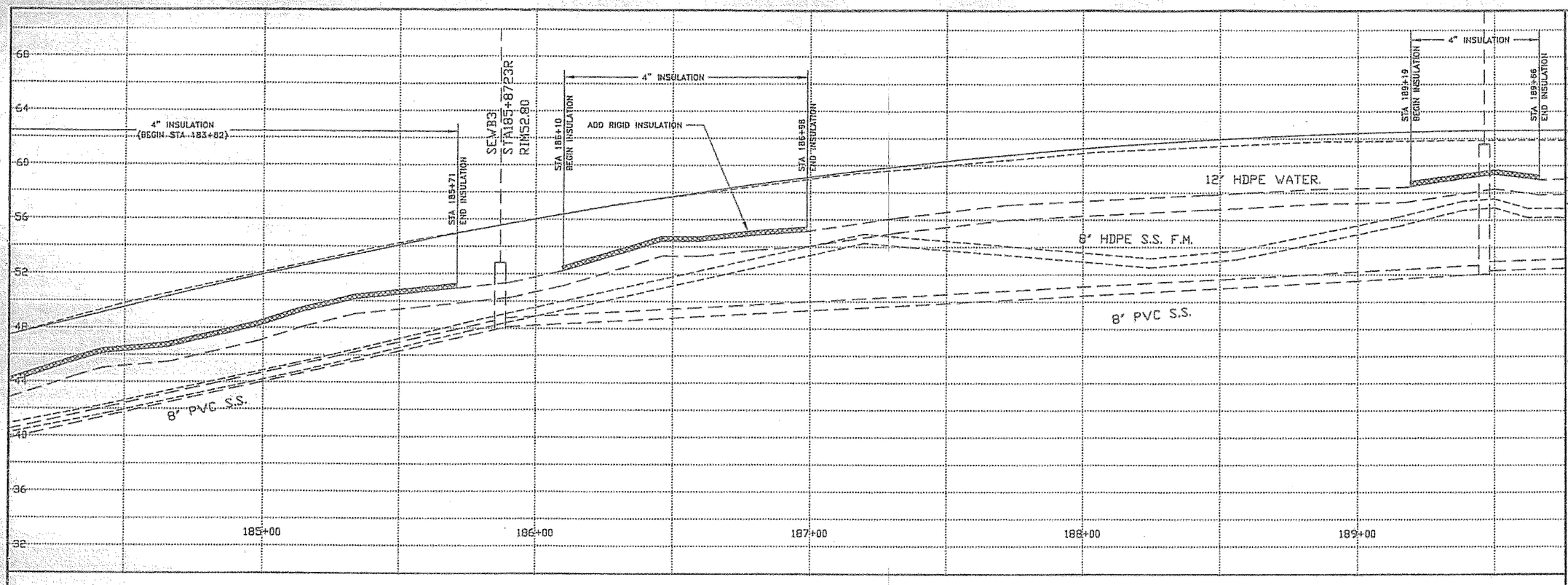
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER
IMPROVEMENTS

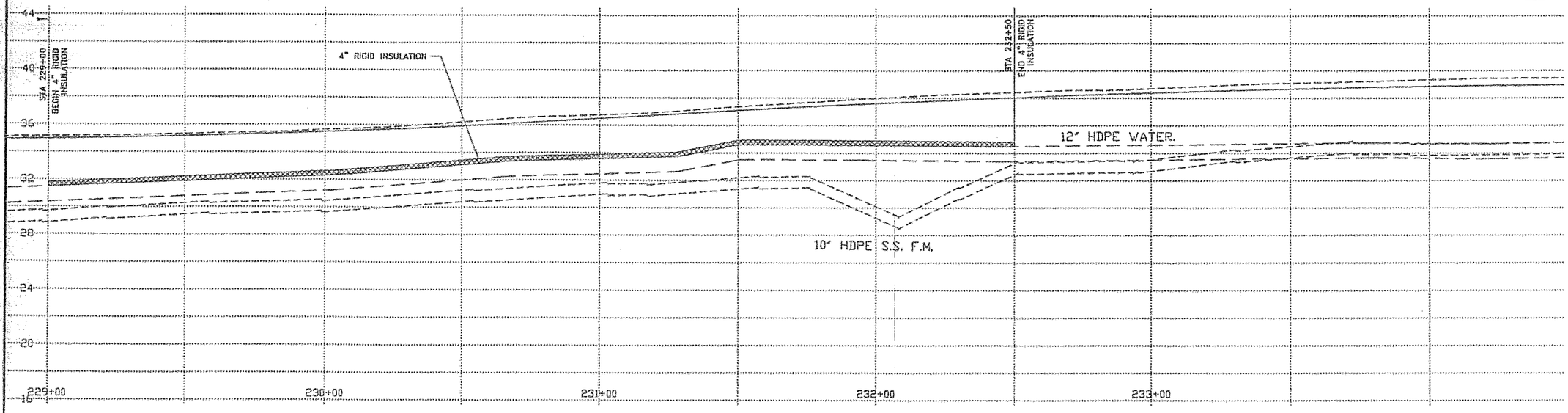
UTILITY CROSSINGS

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W10	179





Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [illegible] Date 4-10

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:

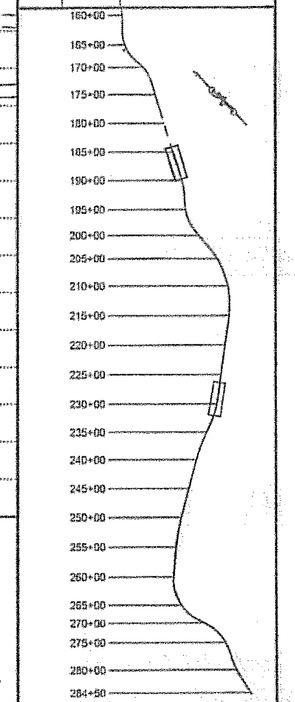
TAB: W11

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

NO.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: T. SANDE

STATE OF ALASKA
49th
TREVOR SANDE
CE 9770
REGISTERED PROFESSIONAL ENGINEER
4/10/06

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

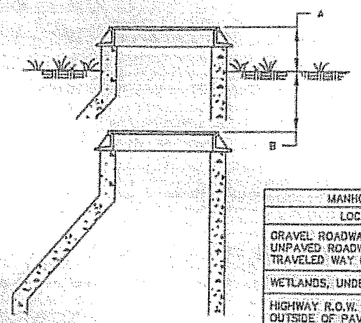
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KGB - WATER & SEWER
IMPROVEMENTS

PROFILE VIEWS AT
PIPE INSULATION

PROJECT DESIGNATION

RSA 69802/68581

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W11	179

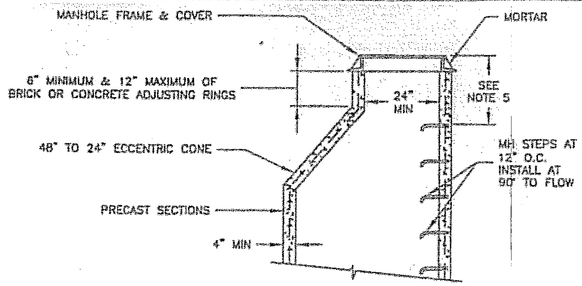


MANHOLE HEIGHT TABLE		
LOCATION	A	B
GRAVEL ROADWAYS, BACKYARDS, UNPAVED ROADWAY SHOULDERS, TRAVELED WAY OF ALLEYS		6"
WETLANDS, UNDEVELOPED AREAS	24"	
HIGHWAY R.O.W. – 10 FEET OUTSIDE OF PAVED ROADWAY	6"	
PAVED ROADWAYS, PAVED PARKING AREAS		1/4"

MANHOLE HEIGHT NOTES:

1. Where installed in paved roadways or paved parking areas, manhole lid shall conform to the grade and cross slope of the pavement. Dimension is to the top of embossed lettering if lettering is higher than the frame.
2. Typical manhole heights shall be applied to the top of any sanitary sewer cleanout covers installed.
3. Buried manholes or cleanouts shall be marked with an orange corsonite marker. See special provisions.

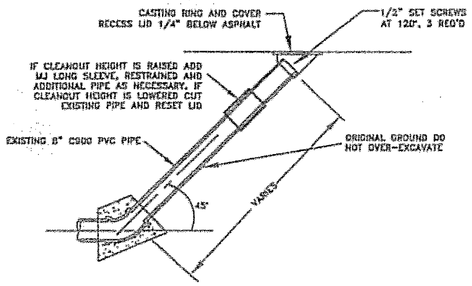
1 / W12 TYPICAL MANHOLE HEIGHTS
NOT TO SCALE



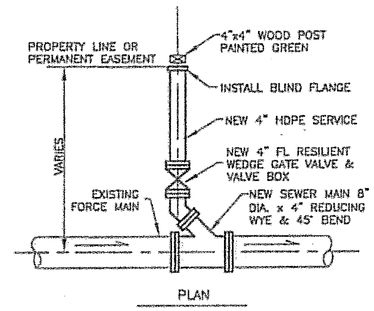
NOTES:

1. WHEN ADJUSTMENT EXCEEDS 12" OR WHEN MORE THAN 14" OF ADJUSTMENT RINGS WILL BE REQUIRED, CONTRACTOR SHALL REMOVE EXISTING MANHOLE TOP SECTION AND ADD THE APPROPRIATE 12" OR 24" RISER SECTIONS.
2. ALL MANHOLE SECTIONS SHALL CONFORM TO ASTM C-478-69, INCLUDING MINIMUM STEEL REQUIREMENTS.
3. ALL JOINTS SHALL INCLUDE A RUBBER GASKET JOINT SUCH AS "RAMO-NEK" OR EQUAL. THE EXTERIOR OF ALL JOINTS SHALL BE PLASTERED WITH AT LEAST ONE INCH OF BENTENONITE CEMENT OR JET SET NON-SEALING GROUT.
4. MANHOLE COVERS SHALL CONFORM TO FINISH SLOPE ELEVATIONS OF STREET OR GROUND, ADJUSTMENTS TO BE ACCOMPLISHED WITH MORTAR.
5. DISTANCE FROM RIM TO FIRST STEP SHALL BE A MAXIMUM OF 24".

2 / W12 TYPICAL MANHOLE RECONSTRUCTION
NOT TO SCALE



3 / W12 SANITARY SEWER CLEANOUT ADJUSTMENT
NOT TO SCALE

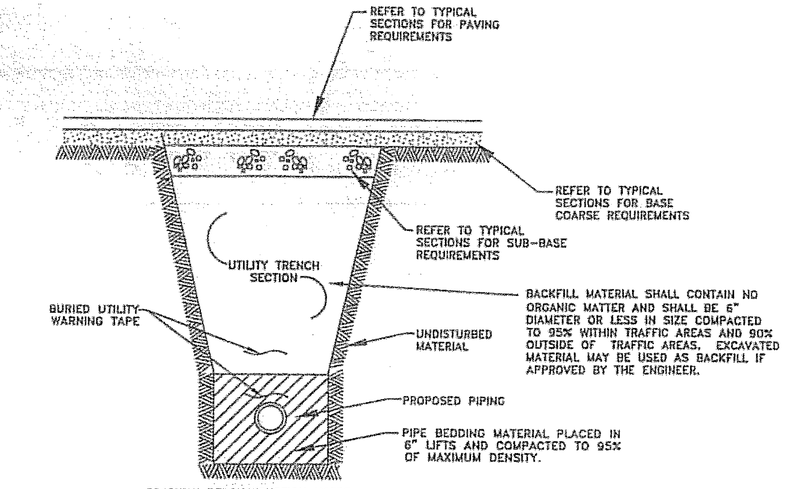


PLAN

SEWER SERVICE CONNECTION NOTES:

1. SEWER SERVICE PIPING SHALL BE SDR 17 HDPE
2. DISTANCE FROM TEE TO MANHOLE, AND TWO MEASURED DISTANCES FROM END OF SERVICE PIPE TO PERMANENT OBJECTS SHALL BE NOTED ON AS-BUILT PLANS.

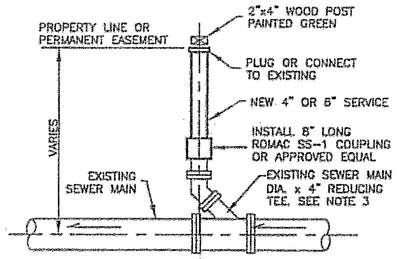
4 / W12 TYPICAL 4" DIAMETER FORCE MAIN SERVICE
NOT TO SCALE



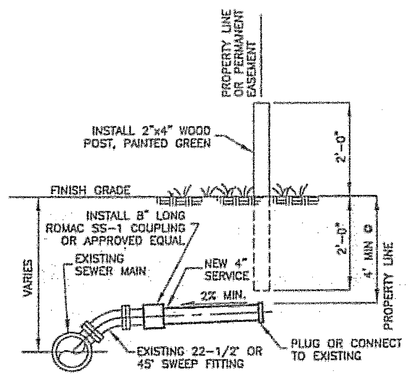
ROADWAY RECONSTRUCTION NOTES:

1. TRENCH BACKFILL WITHIN THE SOUTH TONGASS HIGHWAY ROADWAY PRISM SHALL BE PLACED IN 8" LIFTS AND COMPACTED TO 98% OF MAXIMUM DENSITY.
2. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.

5 / W12 TYPICAL ROADWAY RECONSTRUCTION
NOT TO SCALE



PLAN

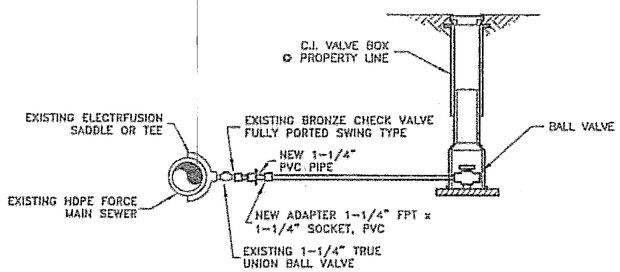


ELEVATION

SEWER SERVICE CONNECTION NOTES:

1. Service connect shall be 4" minimum diameter.
2. Sewer service piping shall be ductile iron (Class 52) or cast iron (Class 2200).
3. Some service connections will require cutting into the existing main to install a wye and 45° bend as shown. Use a similar Romac SS-1 repair band when cutting into the main
4. Inland Foundary Company (IFCO) 1088 4" single strap saddle or equal may be substituted for reducing tee.
5. Distance from tee to manhole, and two measured distances from end of service pipe to permanent objects, shall be noted on as-built plans.

6 / W12 GRAVITY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



7 / W12 PRESSURE SEWER CONNECTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSikenna Date 4-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: T. SANDE
DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
TREVOR SANDE CE 9778
CERTIFIED PROFESSIONAL ENGINEER
2/10/06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

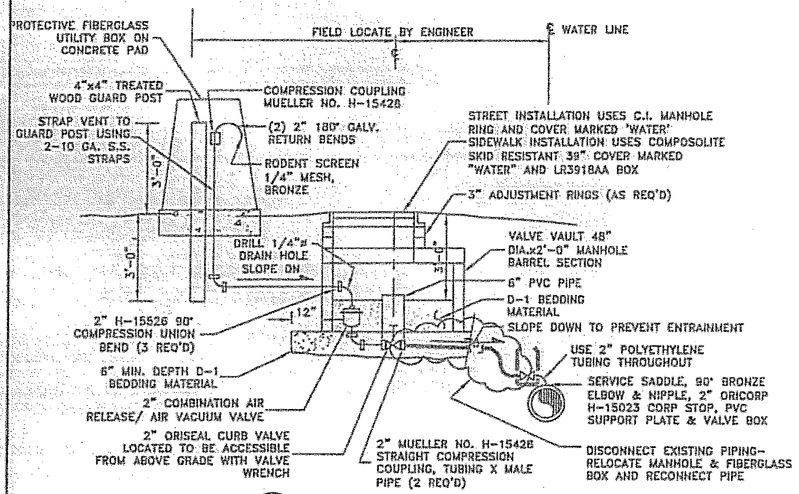
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KETCHIKAN GATEWAY BOROUGH
WATER & SEWER IMPROVEMENTS

SEWER DETAILS

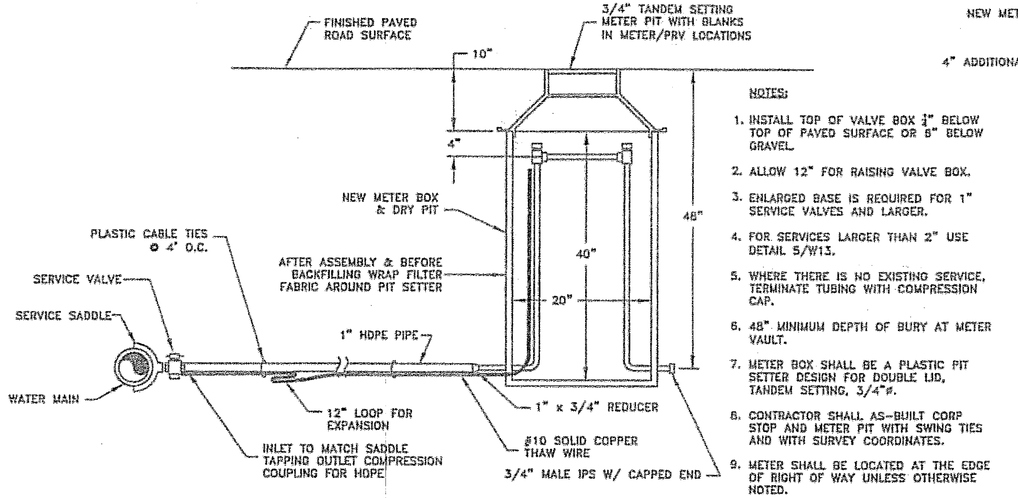
Trevor

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
RSA 69082/68581	2006	W12	179



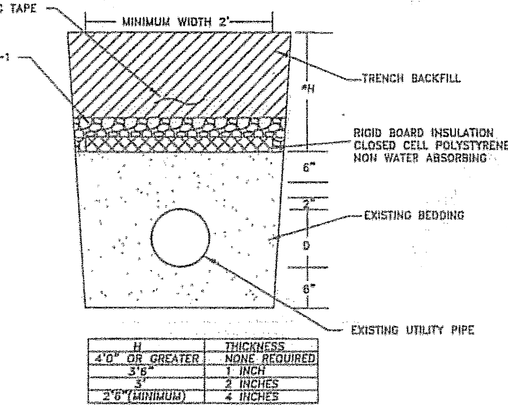
1 W13 AIR RELEASE VALVE RELOCATION
NOT TO SCALE



NOTES:

1. INSTALL TOP OF VALVE BOX 1" BELOW TOP OF PAVED SURFACE OR 6" BELOW GRAVEL.
2. ALLOW 12" FOR RAISING VALVE BOX.
3. ENLARGED BASE IS REQUIRED FOR 1" SERVICE VALVES AND LARGER.
4. FOR SERVICES LARGER THAN 2" USE DETAIL 5/W13.
5. WHERE THERE IS NO EXISTING SERVICE, TERMINATE TUBING WITH COMPRESSION CAP.
6. 48" MINIMUM DEPTH OF BURY AT METER VAULT.
7. METER BOX SHALL BE A PLASTIC PIT SETTER DESIGN FOR DOUBLE LID, TANDEM SETTING, 3/4"ø.
8. CONTRACTOR SHALL AS-BUILT CORP STOP AND METER PIT WITH SWING TIES AND WITH SURVEY COORDINATES.
9. METER SHALL BE LOCATED AT THE EDGE OF RIGHT OF WAY UNLESS OTHERWISE NOTED.

2 W13 TYPICAL BURIED WATER SERVICE, 2" AND SMALLER
NOT TO SCALE



H	THICKNESS
4'0" OR GREATER	NONE REQUIRED
3'6"	1 INCH
3'	2 INCHES
2'6" (MINIMUM)	4 INCHES

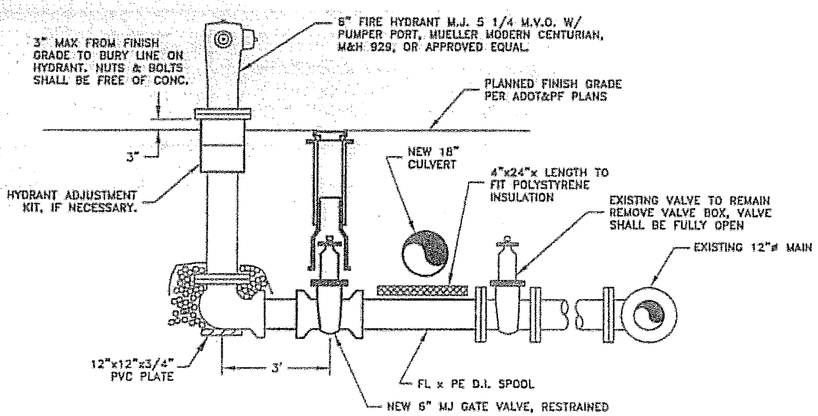
NOTE:

1) EXCAVATE TO EXISTING BEDDING. INSTALL INSULATION AND ADD 4" OF ADDITIONAL D-1.

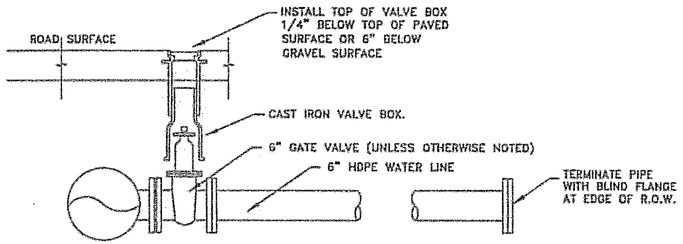
2) RIGID BOARD INSULATION JOINTS SHALL BE LAPPED

*H: ALSO REFERS TO CLEAR SPACING BETWEEN THE PIPE AND OTHER DRAINAGE STRUCTURES OR THE WATER LINE.

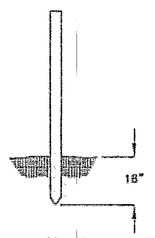
3 W13 PIPE INSULATION REQUIREMENTS
NOT TO SCALE



4 W13 FIRE HYDRANT RELOCATION
NOT TO SCALE



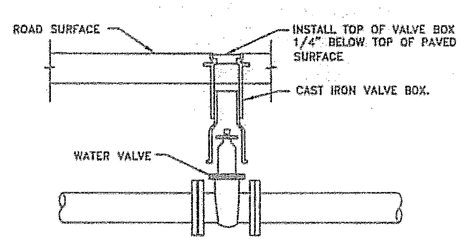
5 W13 TYPICAL BURIED WATER SERVICE, 4" & LARGE
NOT TO SCALE



UTILITY MARKER NOTES:

1. Carsonite utility marker shall be installed at each sewer manhole and fire hydrant installation.
2. Install markers on "mountain" side of ditch section.
3. Install ORANGE utility marker at sewer manholes.
4. Install BLUE utility marker at water main valves and fire hydrant installations.

6 W13 UTILITY MARKER DETAIL
NOT TO SCALE



7 W13 TYPICAL BURIED MAIN LINE VALVE
NOT TO SCALE

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSWEARD Date 4-05

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: T. SANDE
DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
TREVOR SANDE CE 9778
CERTIFIED PROFESSIONAL ENGINEER
4/20/06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

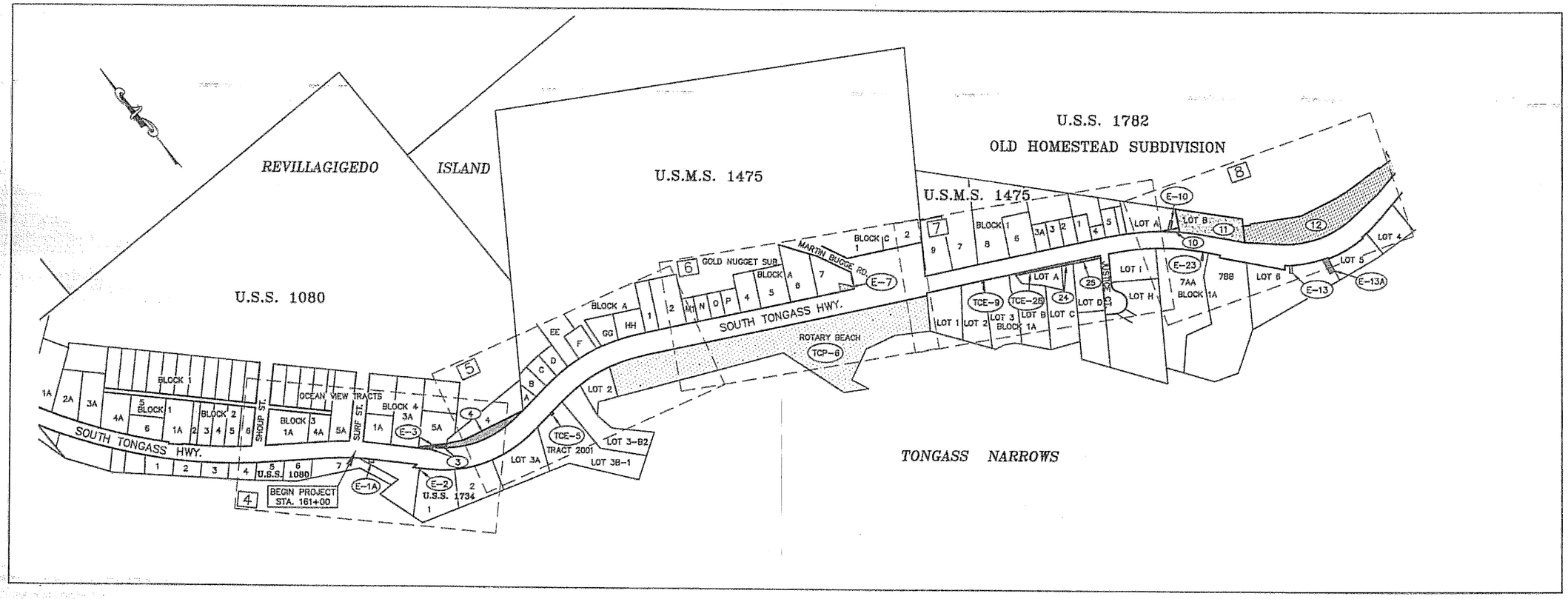
KETCHIKAN, ALASKA
SOUTH TONGASS HIGHWAY
KETCHIKAN GATEWAY BOROUGH
WATER & SEWER IMPROVEMENTS

WATER DETAILS

Trever

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
RSA 69082/68581	2006	W13	179



PROJECT CENTERLINE				
STATION	TANGENT–CURVE DATA		NORTHING	EASTING
PT 157+30.56			327173.527	657901.064
	S 54–02–49 E	226.17		
PC 159+56.73			327040.736	658084.151
	DELTA: 09–32–34 RT	LENGTH: 199.86		
	RADIUS: 1200.00	TANGENT: 100.16		
PT 161+56.59			326910.493	658235.443
	S 44–30–16 E	127.13		
PC 162+83.72			326819.825	658324.556
	DELTA: 49–41–32 LT	LENGTH: 520.38		
	RADIUS: 600.00	TANGENT: 277.83		
PT 166+04.10			326642.012	658796.383
	N 85–48–12 E	133.84		
PC 169+37.94			326651.806	658929.863
	DELTA: 32–00–41 RT	LENGTH 335.22		
	RADIUS: 600.00	TANGENT: 172.11		
PT 172+73.16			326584.092	659253.740
	S 62–11–07 E	1725.03		
PC 189+98.19			325779.169	660779.465
	DELTA: 14–17–32 RT	LENGTH: 249.45		
	RADIUS: 1000.00	TANGENT: 125.37		
PT 192+47.64			325636.603	660983.367
	S 47–53–35 E	149.96		
PC 193+97.60			325536.052	661094.624
	DELTA: 39–11–08 LT	LENGTH: 547.13		
	RADIUS: 800.00	TANGENT: 284.75		
PT 199+44.73			325330.608	661590.265
	S 87–04–44 E	269.29		
PC 202+14.02			325316.884	661859.201
	DELTA: 50–26–37 RT	LENGTH: 1320.61		
	RADIUS: 1500.00	TANGENT: 706.54		
PT 215+34.63			324713.911	662986.433
	S 36–38–07 E	1382.46		
PC 229+17.09			323604.554	663811.373

PROJECT CENTERLINE				
STATION	TANGENT–CURVE DATA		NORTHING	EASTING
PC 229+17.09			323604.554	663811.373
	DELTA: 15–32–20 RT	LENGTH: 406.81		
	RADIUS: 1500.00	TANGENT: 204.66		
PT 233+23.90			323249.379	664007.163
	S 21–05–46 E	446.67		
PC 237+70.57			322832.651	664167.933
	DELTA: 08–59–44 LT	LENGTH: 235.50		
	RADIUS: 1500.00	TANGENT: 117.99		
PT 240+06.07			322620.476	664269.563
	S 30–05–30 E	1031.52		
PC 250+37.58			321727.982	664786.750
	DELTA: 10–00–31 LT	LENGTH: 436.71		
	RADIUS: 2500.00	TANGENT: 218.91		
PT 254+74.30			321371.123	665037.518
	S 40–06–01 E	511.95		
PC 259+86.25			320979.524	665367.280
	DELTA: 68–13–51 LT	LENGTH: 893.14		
	RADIUS: 750.00	TANGENT: 508.08		
PT 268+79.38			320750.680	666176.849
	N 71–40–08 E	178.18		
PC 270+57.57			320806.721	666345.992
	DELTA: 45–40–03 RT	LENGTH: 597.78		
	RADIUS: 750.00	TANGENT: 315.79		
PT 276+55.35			320761.025	666926.282
	S 82–39–50 E	156.08		
PC 278+11.43			320689.353	667064.930
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PT 280+44.46			320607.320	667282.478
	S 76–00–55 E	471.75		
PC 285+16.21			320493.316	667740.243
	DELTA: 57–29–44 LT	LENGTH: 531.85		
	RADIUS: 530.00	TANGENT: 290.74		
PT 290+48.06			320623.227	668233.226

GENERAL NOTES

1. THE HORIZONTAL CONTROL FOR THIS SURVEY IS BASED ON THE DOT&PF KETCHIKAN SOUTH TONGASS GRID 2000. THIS IS A LOCAL GROUND COORDINATE SYSTEM ESTABLISHED BY STATIC GPS OBSERVATIONS. THE GEODETIC COORDINATES WERE CONVERTED TO ALASKA STATE PLANE ZONE 1, NAD–83 FEET. THESE STATE PLANE COORDINATES WERE ROTATED, SCALED AND TRANSLATED TO ESTABLISH A LOCAL COORDINATE SYSTEM REFERENCED TO TRUE NORTH.
2. WHERE RECORD COURSES DIFFER FROM MEASURED OR COMPUTED COURSES, THE RECORD COURSE IS IN PARENTHESIS.
3. THE PURPOSE OF THESE PLANS IS TO DEFINE THE RIGHT OF WAY FOR ALASKA DOT&PF PROJECT STP–0920(20) 71670.
4. THESE PLANS ARE BASED ON A RIGHT OF WAY MAP OF SOUTH TONGASS HIGHWAY FROM DEERMOUNT STREET TO MILEPOST 8. THAT MAP WAS PREPARED BY R&M ENGINEERING INC. OF JUNEAU UNDER CONTRACT TO DOT&PF. MONUMENT TIES, LOCATION OF TOPOGRAPHY, AND TRAVERSE ADJUSTMENTS WERE PERFORMED BY R&M. THE INITIAL CONTROL TRAVERSE AND SOME ADDITIONAL TOPOGRAGHY AND PROPERTY TIES WERE PROVIDED BY THE DOT&PF LOCATION SURVEY CREW. THE LOCATION OF THE RIGHT OF WAY CORRIDOR, ADJACENT PROPERTY LINES AND EXISTING EASEMENTS WERE COMPUTED BY R&M. THIS RIGHT OF WAY MAP WAS RECORDED ON 1/03/2005 AS PLAT 2005–1, KETCHIKAN RECORDING DISTRICT.
5. THE PREPARATION OF THESE PLANS WAS DIRECTLY SUPERVISED BY THE SENIOR RIGHT OF WAY AGENT, TITLES AND PLANS SECTION, SOUTHEAST REGION. THE PARCELS AND EASEMENTS SHOWN ON THESE PLANS WERE DESIGNED AND DIMENSIONED BY THE DOT&PF RIGHT OF WAY SECTION.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHENOY Date 4-01

DATE	REVISIONS	BY

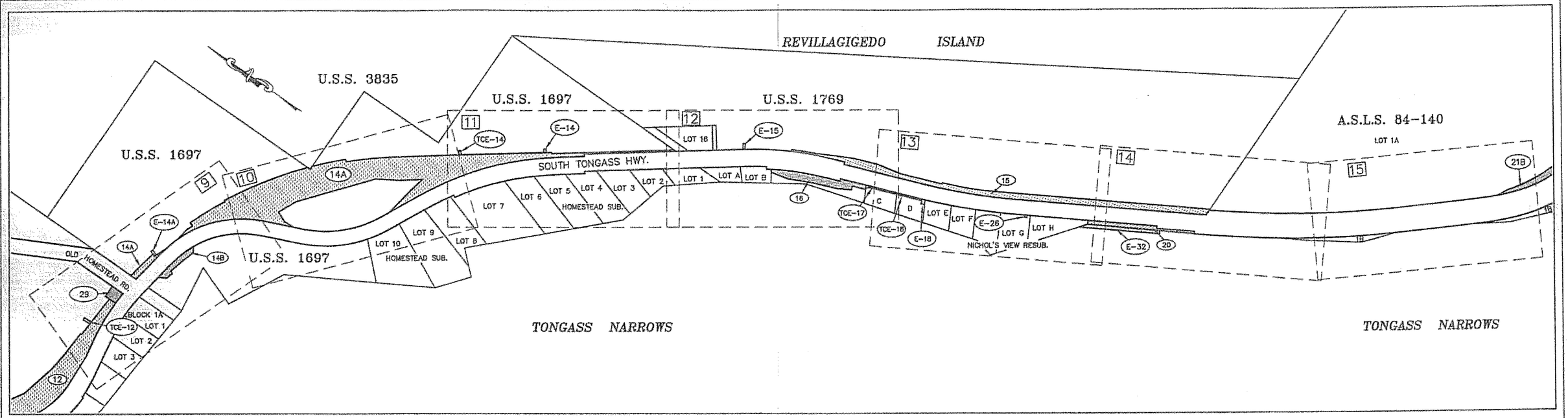
STATE OF ALASKA

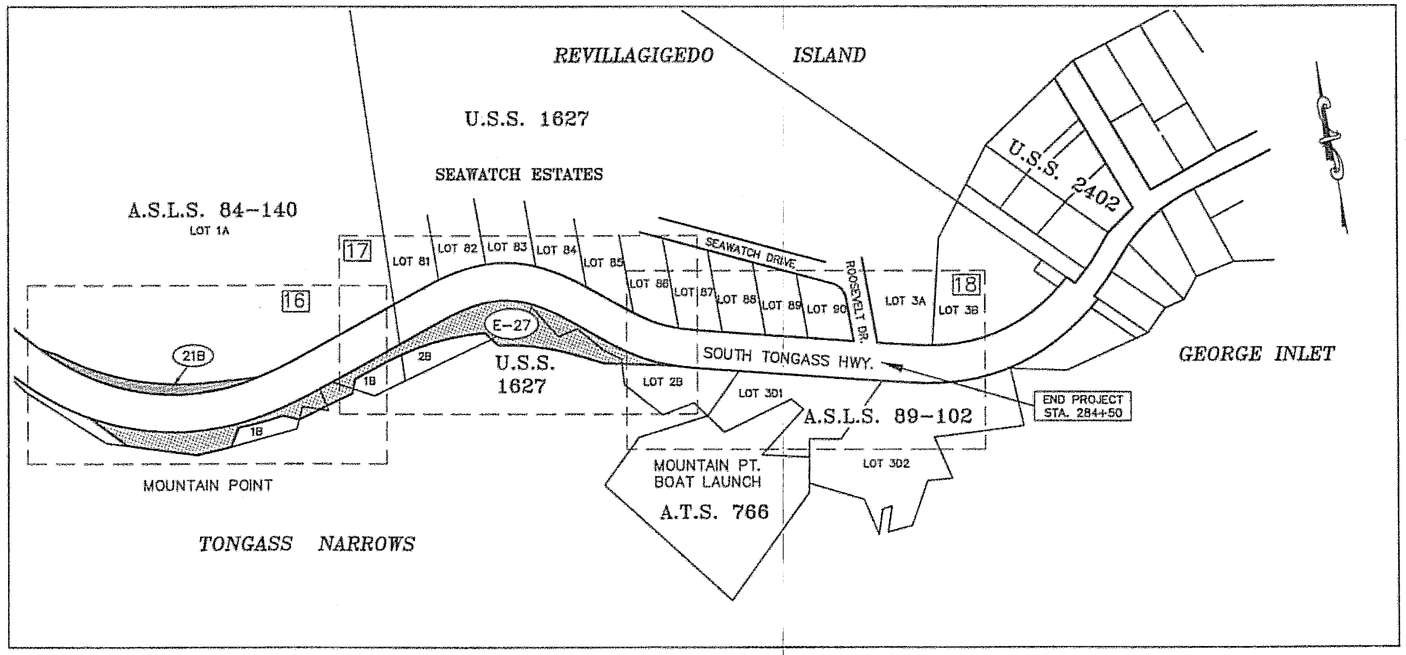
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

RIGHT OF WAY MAP

ALASKA PROJECT NO.
STP–0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 12/2004	SCALE 1"=200'
CHECKED	DATE	SHEET X1 OF 179





Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEARD Date 4-09

DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION

&

PUBLIC FACILITIES

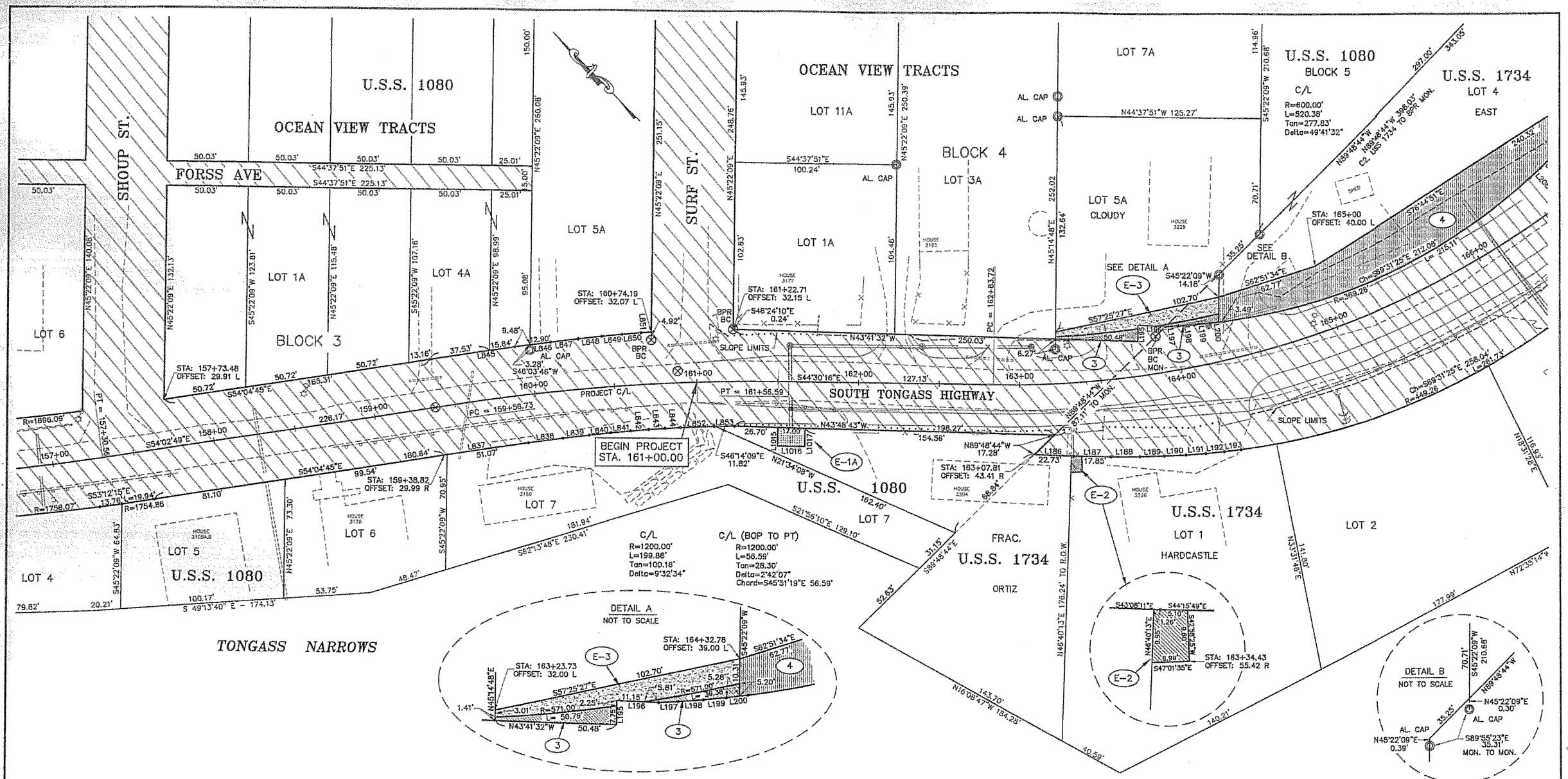
RIGHT OF WAY MAP

ALASKA PROJECT NO.

STP-0902(20) 71670

SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 12/2004	SCALE 1"=200'
CHECKED	DATE	SHEET X2 OF 179



PARCEL	OWNER	AREA	REMAIN
3	CLOUDY	323 S.F.	15036 S.F.
4	EAST	6834 S.F.	41642 S.F.

EASEMENT	OWNER	AREA	PURPOSE
E-1A	ORTIZ	193 S.F.	DRAINAGE (SEE NOTE)
E-2	HARDCASTLE	65 S.F.	UTILITY
E-3	CLOUDY	806 S.F.	UTILITY

NOTE: THE PURPOSE OF THIS EASEMENT IS TO CORRECT THE LOCATION OF AN EASEMENT ACQUIRED IN 1993 AND RECORDED IN BK. 220, PG. 552, K.R.D. THE RIGHT OF WAY LIMITS SHOWN ON THAT PLAT ARE ERRONEOUS.

LINE	BEARING	DISTANCE
L186	S43°08'11"E	23.99'
L187	S44°15'49"E	22.95'
L188	S45°35'35"E	17.78'
L189	S46°54'43"E	15.13'
L190	S48°13'41"E	13.44'
L191	S49°32'34"E	12.24'
L192	S50°51'25"E	11.33'
L193	S52°10'14"E	10.61'
L195	N45°22'09"E	10.00'
L196	S42°27'22"E	16.96'
L197	S48°26'55"E	7.70'
L198	S49°32'34"E	10.40'
L199	S50°51'25"E	9.49'
L200	S52°10'13"E	8.77'

LINE	BEARING	DISTANCE
L838	S52°59'57"E	21.55'
L839	S52°15'24"E	16.47'
L840	S51°31'09"E	13.82'
L841	S50°46'59"E	12.13'
L842	S50°02'52"E	10.93'
L843	S49°18'46"E	10.02'
L844	S48°34'41"E	9.30'
L845	S53°50'14"E	53.37'
L846	S52°59'59"E	22.38'
L847	S52°15'24"E	17.24'
L848	S51°31'09"E	14.60'
L849	S50°46'59"E	12.90'
L850	S50°02'52"E	11.70'
L852	S47°24'32"E	20.55'
L853	S46°14'09"E	12.41'

LINE	BEARING	DISTANCE
L1015	S45°29'44"W	11.48'
L1016	S44°33'53"E	17.00'
L1017	S45°29'44"W	11.28'

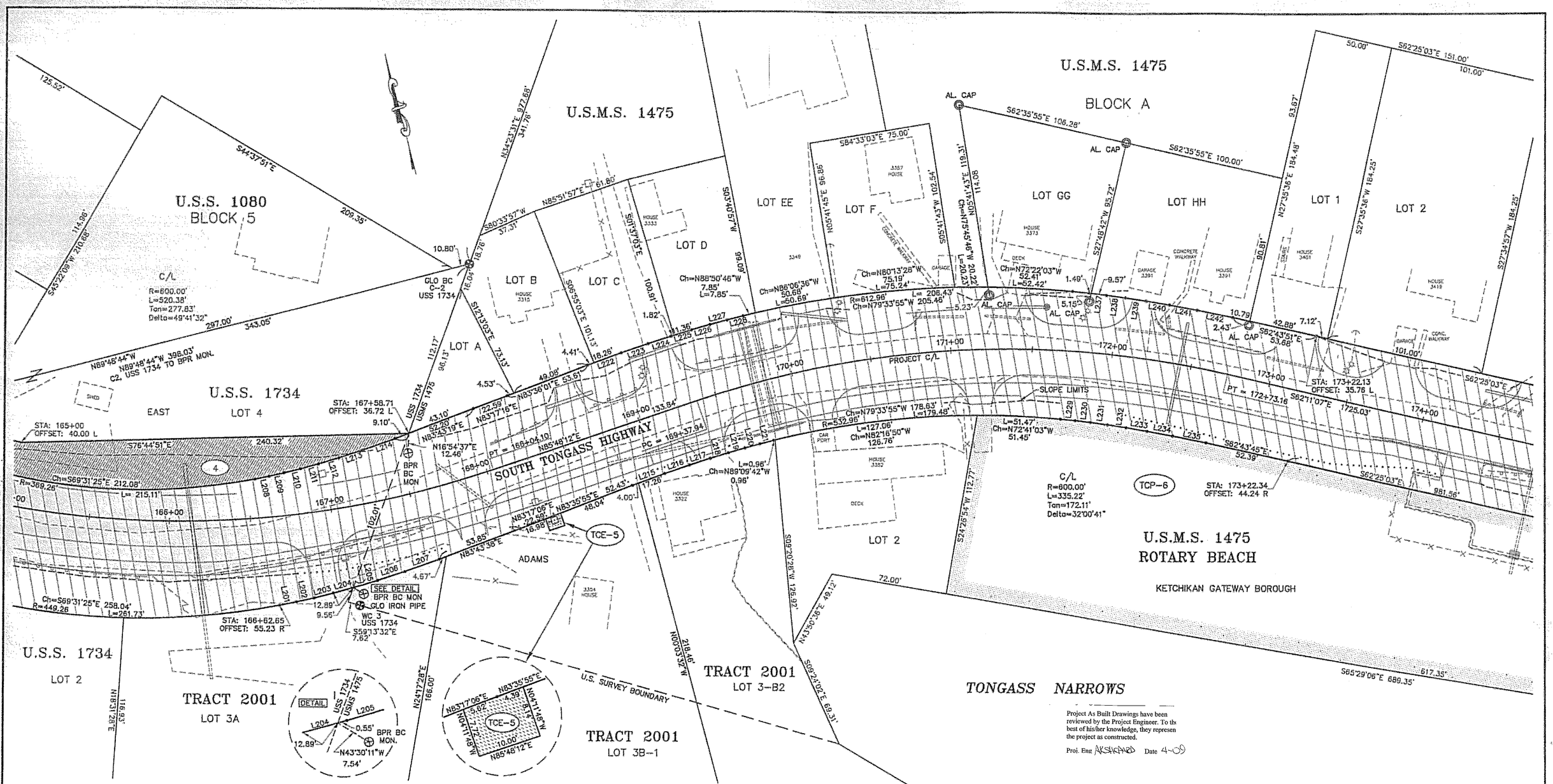
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr AKSHAND Date 4-09

DATE	REVISIONS	BY
1/05	DELETE E-1B	GY
1/05	REVISE PARCEL 3, ADD E-3	GY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN	ROW	DATE	11/2004	SCALE	1"=30'
CHECKED		DATE		SHEET	X3 OF 179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr ALSTAFFORD Date 4-09

PARCEL	OWNER	AREA	REMAIN
4	EAST	SEE SH. 4	

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-5	ADAMS	79 S.F.	SERVICE POLE

LINE	BEARING	DISTANCE
L201	S86°52'36"E	10.61'
L202	S88°11'25"E	11.33'
L203	S89°30'16"E	12.24'
L204	N89°10'51"E	13.44'
L205	N87°51'54"E	15.13'
L206	N86°32'45"E	17.78'
L207	N85°12'59"E	22.95'
L208	S86°52'37"E	8.77'
L209	S88°11'25"E	9.49'
L210	S89°30'16"E	10.40'
L211	N89°10'51"E	11.60'
L212	N87°51'54"E	13.29'
L213	N86°32'46"E	15.93'
L214	N85°13'12"E	20.98'

LINE	BEARING	DISTANCE
L215	N84°40'02"E	21.26'
L216	N85°38'54"E	16.20'
L217	N86°33'25"E	13.55'
L218	N87°29'49"E	11.86'
L219	N88°26'10"E	10.66'
L220	N89°22'29"E	9.75'
L221	S89°41'14"E	9.03'
L222	N84°39'56"E	22.67'
L223	N85°36'53"E	17.52'
L224	N86°33'25"E	14.87'
L225	N87°29'49"E	13.18'
L226	N88°26'10"E	11.97'
L227	N89°22'29"E	11.06'
L228	S89°41'13"E	10.34'

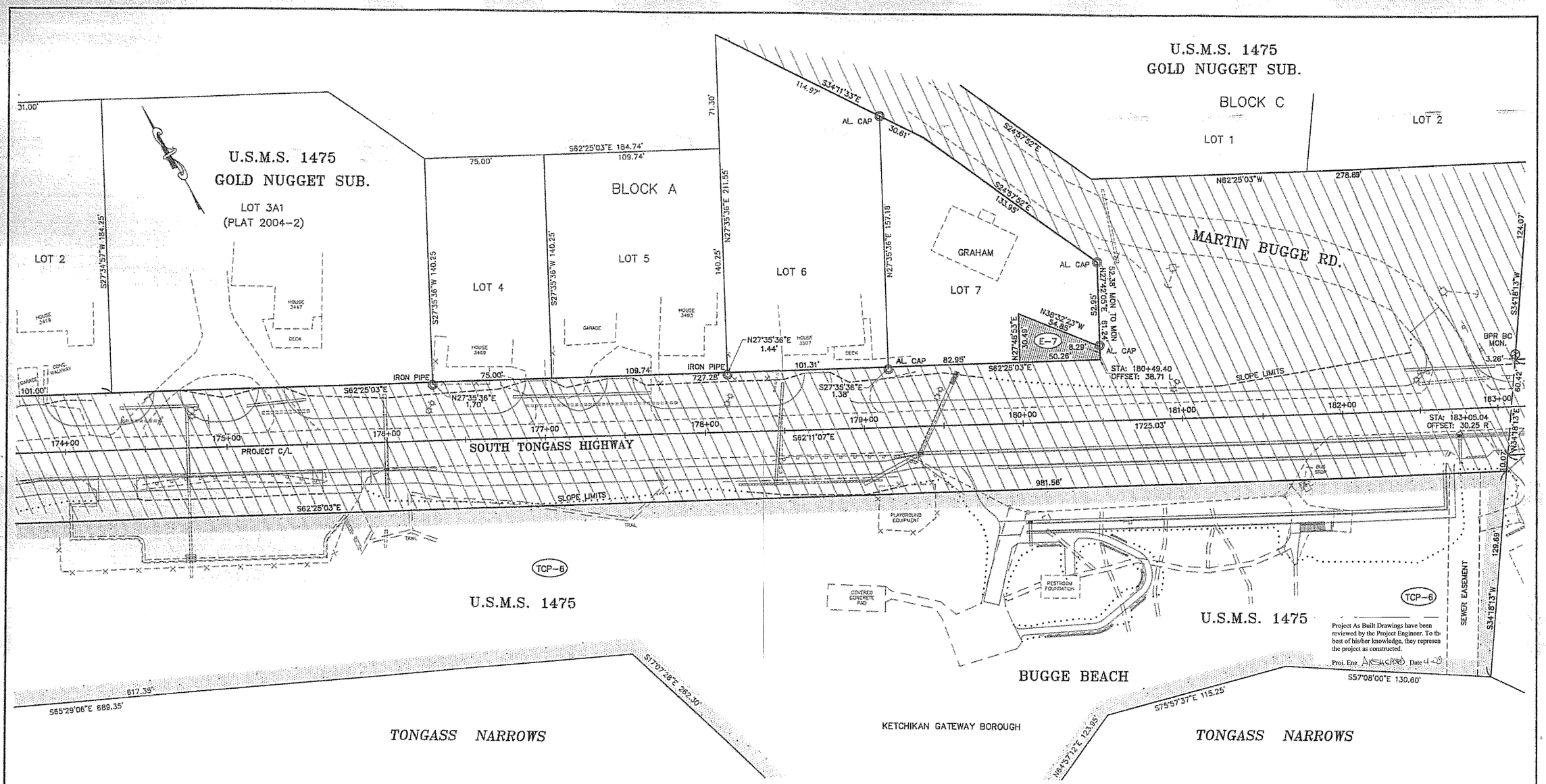
LINE	BEARING	DISTANCE
L229	S69°26'37"E	9.03'
L230	S68°30'19"E	9.75'
L231	S67°34'00"E	10.66'
L232	S66°37'39"E	11.86'
L233	S65°41'15"E	13.55'
L234	S64°44'44"E	16.20'
L235	S63°47'52"E	21.26'
L236	S89°26'37"E	10.34'
L237	S68°30'19"E	11.06'
L238	S67°34'00"E	11.97'
L239	S66°37'39"E	13.18'
L240	S65°41'15"E	14.87'
L241	S64°44'44"E	17.52'
L242	S63°47'46"E	20.92'

DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X4 OF 179



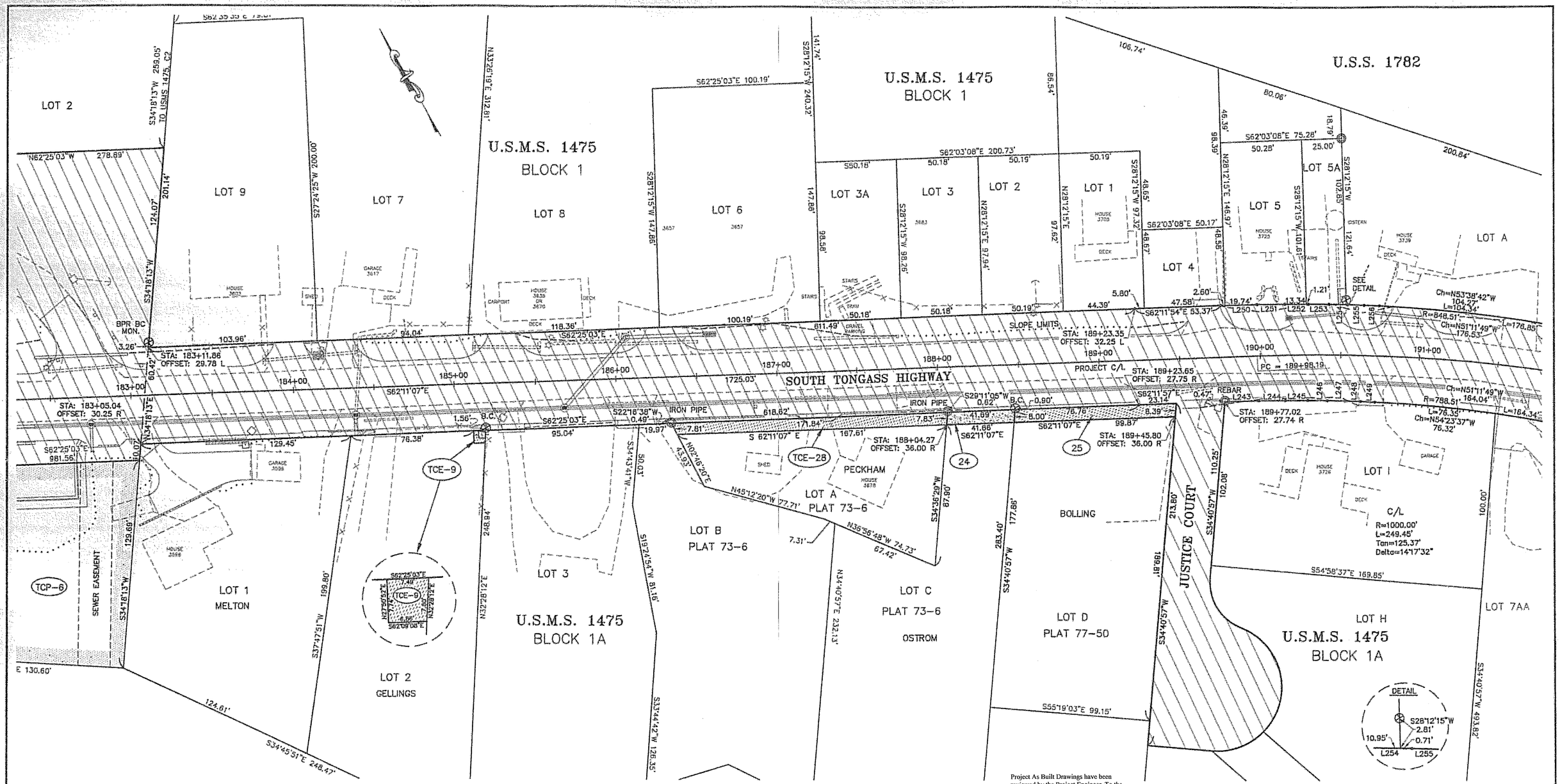
EASEMENT	OWNER	AREA	PURPOSE
E--7	GRAHAM	974 S.F.	SLOPE CLEARING

2/05	MODIFY E--7	GY
DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X5 OF 179



PARCEL	OWNER	AREA	REMAIN
24	OSTROM	327 S.F.	25533 S.F.
25	BOLLING	812 S.F.	18228 S.F.

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-9	GELLINGS	56 S.F.	SERVICE POLE
TCE-28	PECKHAM	1261 S.F.	CONSTRUCTION ACCESS

LINE	BEARING	DISTANCE
L243	S61°27'06"E	21.60'
L244	S60°47'17"E	16.51'
L245	S60°07'43"E	13.87'
L246	S59°28'14"E	12.17'
L247	S58°48'47"E	10.97'
L248	S58°09'22"E	10.08'
L249	S57°29'58"E	9.34'
L250	S61°27'08"E	22.34'
L251	S60°47'17"E	17.20'
L252	S60°07'43"E	14.55'
L253	S59°28'14"E	12.86'
L254	S58°48'47"E	11.66'
L255	S58°09'22"E	10.75'
L256	S57°29'57"E	10.03'

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-5

DATE	REVISIONS	BY
10/05	DELETE TCE-8	GY
02/05	NAME CHANGE, TCE-8	GY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X6 OF 179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 4-08

U.S.M.S. 1475
LOT A
PEURA
LOT A
LOT B
DIMA
LOT 7AA
SIMS
LOT 7AA
LOT 7BB
U.S.M.S. 1475
BLOCK 1A
U.S.S. 1782
BLOCK 1A
LOT 6
SIMS
U.S.S. 1782
OLD HOMESTEAD SUBDIVISION
PHASE 2
UNSUBDIVIDED REMAINDER
HOMESTEAD DEVELOPMENT
SOUTH TONGASS HIGHWAY
LOT 4
BLOCK 1A
LOT 5
SLOPE LIMITS
PROJECT C/L
C/L
DETAIL
SEE DETAIL
REBAR
MON. TO COR. S28°12'15"W 3.21'
STA: 192+21.43 OFFSET: 109.27 L
STA: 191+75 OFFSET: 28.72 L
STA: 192+35.65 OFFSET: 42.00 L
STA: 192+42.50 OFFSET: 34.19 R
STA: 194+70.72 OFFSET: 80.13 L
STA: 194+71.88 OFFSET: 55.00 L
STA: 195+00 OFFSET: 60.00 L
STA: 196+50 OFFSET: 55.00 L
STA: 197+00 OFFSET: 50.00 L
STA: 200+50 OFFSET: 55.00 L
STA: 199+50.50 OFFSET: 95.31 R
STA: 195+95.29 OFFSET: 120.66 R
STA: 196+15.77 OFFSET: 138.59 R
STA: 198+61.73 OFFSET: 119.26 R
STA: 197+39.89 OFFSET: 178.38 R
"X" IN ROCK C-4, U.S.M.S 1475 MC-1, U.S.S. 1782
(C-2, USMS 1475 TO C-3, USMS 1475) N41°53'09"W 1193.54' 246.09'
S74°30'05"E 99.50'
S34°27'50"W 400.83' C-3 TO C-4
N30°27'47"E 123.71'
242.87'
361.24' N79°53'26"W TO MC-1 U.S.S. 1782
525.28'
N79°53'26"W 164.04'
S34°27'50"W 92.70'
N11°09'18"E 55.00'
S78°50'42"E 20.00'
N11°09'18"E 58.28'
S34°27'50"W 60.13'
S34°27'50"W 25.15'
N34°46'23"E 5.00'
S39°59'33"E 0.70'
S39°59'33"E 78.12'
S40°11'41"E 53.34'
S40°11'41"E 32.72'
S40°11'39"E 9.86'
S47°22'39"E 143.41'
S87°04'44"E 105.27'
S87°04'44"E 200.00'
S80°03'42"W 53.39'
N87°12'57"E 143.40'
S00°18'50"W 5.00'
S00°08'42"W 97.31'
N86°02'26"W 140.40'
S00°08'42"E 126.08'
S87°04'44"E 140.04'
N76°57'35"W 140.04'
S59°19'54"E 186.03'
S00°01'26"W 15.00'
S51°22'07"E 87.58'
N39°31'26"E 15.00'
S39°59'15"E 97.61'
S18°45'43"W 5.00'
N79°45'51"E 18.69'
N80°15'23"E 53.75'
N79°48'51"E 18.69'
N80°03'42"E 53.39'
9.64'
9.78'
24.14'
N02°55'16"E 5.00'
55.77'
S00°18'50"W 5.00'
S80°27'43"E 144.03'
L= 144.85'
L= 252.69'
R=369.26'
Ch=S70°04'52"E 247.79'
L=3.13' Ch=S71°02'10"E 3.13'
L=20.27' Ch=S69°31'38"E 20.27'
L=110.92' Ch=S61°04'03"E 110.63'
L=16.66' Ch=S51°33'01"E 16.66'
R=444.26' Ch=S60°31'26"E 160.10' L= 160.98'
R=745.00' L=26.21' Ch=S54°13'09"E 26.21'
R=745.00' L=88.22' Ch=S83°41'11"E 88.17'
R=800.00' L=547.13' Tan=284.75' Delta=39°11'08"
R=1000.00' L=249.45' Tan=125.37' Delta=14°17'32"
R=848.51' L=104.34' Ch=N53°36'42"W 104.27'
R=788.51' L=176.85' Ch=N51°11'49"W 176.53'
R=788.51' L=164.04' Ch=N51°11'49"W 164.04'
L=87.86' Ch=N48°25'23"W 87.94'
L=78.38' Ch=N54°23'37"W 76.32'
L=6.39' Ch=N45°26'30"W 6.39'
PT = 192+47.64
PC = 193+97.60
PT = 198+44.73
21.60' S40°56'31"E
10.45'
9.44'
100.00'
68.99' S28°12'15"W 85.39'
EXISTING ESMT. N51°22'07"E 87.58'
L1025 L1026 L1027 L1028 L1029 L1030 L1031 L1032 L1033 L1034 L1035 L1036 L1037
C1 C2
E-10 E-13 E-13A E-23
10 11 12

EASEMENT	OWNER	AREA	PURPOSE
E-10	PEURA	337 S.F.	UTILITY
E-13	SIMS	281 S.F.	UTILITY
E-13A	SIMS	1,131 S.F.	DRAINAGE
E-23	SIMS	143 S.F.	UTILITY

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	66.12'	848.51'	4°27'54"	N47°53'23"W	66.11'
C2	10.01'	444.26'	1°17'28"	S53°16'12"E	10.01'

PARCEL	OWNER	AREA	REMAIN
10	PEURA	498 S.F.	18357 S.F.
11	DIMA	19,266 SF	0
12	HOMESTEAD DEVELOPMENT	1.31 AC.	59.43 AC.

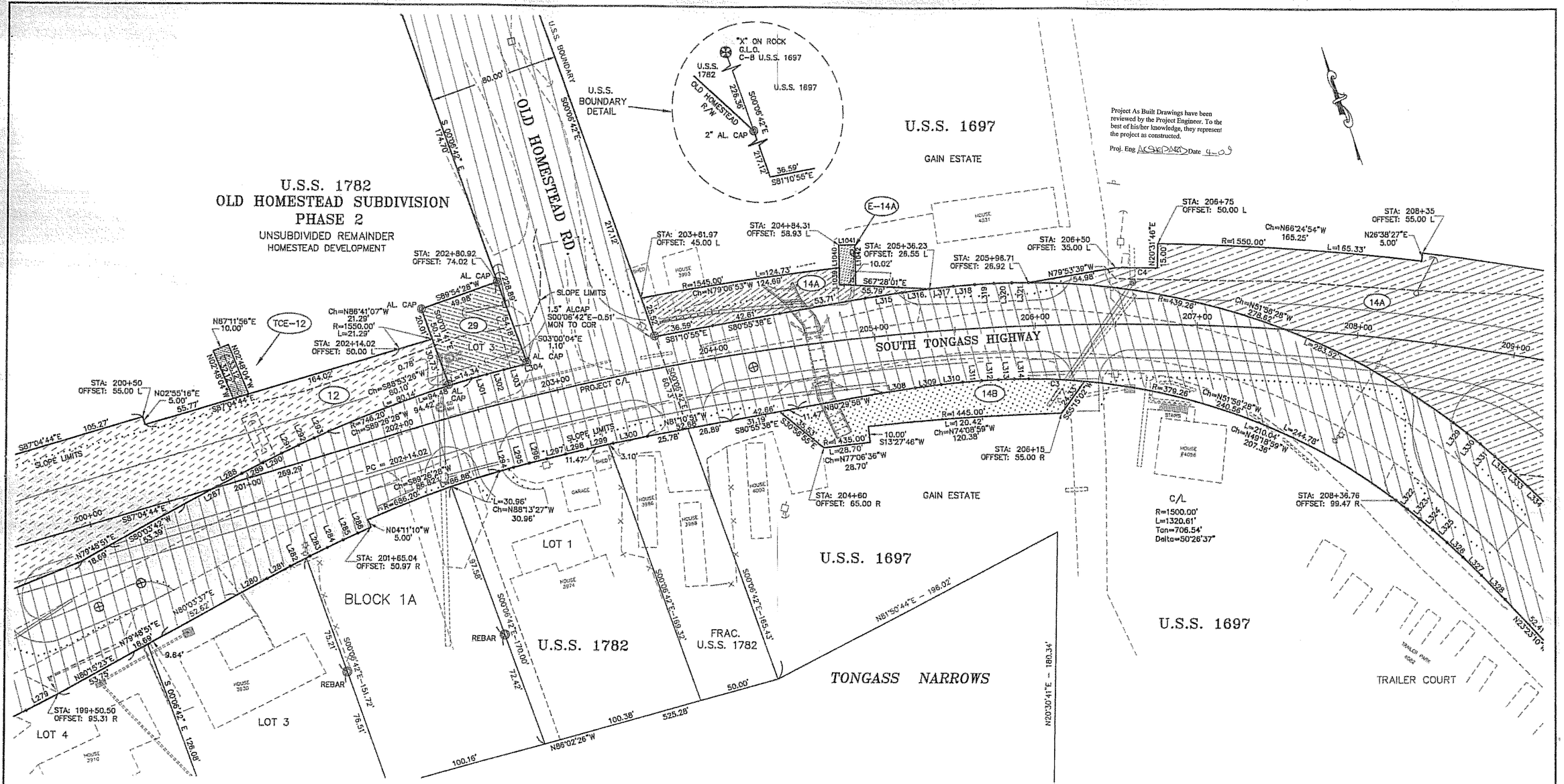
LINE	BEARING	DISTANCE
L1025	N62°15'19"W	22.49
L1026	N54°31'20"E	38.19
L1027	S35°28'40"E	10.00
L1028	N54°31'20"E	31.14
L1029	N62°15'19"W	11.20
L1030	N62°15'19"W	30.48
L1031	S40°56'31"E	1.71
L1032	N42°19'28"E	30.08
L1033	S35°28'40"E	8.06
L1034	S54°31'20"W	29.24
L1035	S36°40'23"W	27.91
L1036	S51°19'37"E	10.00
L1037	S36°40'23"W	28.25

LINE	BEARING	DISTANCE
L257	S44°53'40"E	9.34'
L258	S44°14'15"E	10.06'
L259	S43°34'50"E	10.97'
L260	S42°55'23"E	12.17'
L261	S42°15'55"E	13.87'
L262	S41°36'21"E	16.51'
L263	S40°56'31"E	21.60'
L265	S44°53'40"E	10.03'
L266	S44°14'15"E	10.75'
L267	S43°34'50"E	11.66'
L268	S42°55'23"E	12.86'
L269	S42°15'54"E	14.55'
L270	S41°36'20"E	17.20'
L271	S40°56'29"E	22.34'
L273	N89°39'02"E	10.49'
L274	N88°20'13"E	11.21'
L275	N87°01'22"E	12.12'
L276	N85°42'29"E	13.32'
L277	N84°23'31"E	15.01'
L278	N83°04'23"E	17.66'
L279	N81°44'37"E	22.83'

5/05	MODIFY E-10	GY
3/05	ADD E-13A, MODIFY E-10	GY
3/05	CHANGE OWNER PARCEL 10, E-10	GY
1/05	MODIFY LOT LINES, BLOCK 1A, USS 1782	GY
1/05	ENLARGE PARCEL 11	GY
DATE	REVISIONS	BY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X7	OF 179



EASEMENT	OWNER	AREA	PURPOSE
E-14A	GAIN ESTATE	248 S.F.	GUARDRAIL

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-12	HOMESTEAD DEVELOPMENT	326 S.F.	UTILITY

PARCEL	OWNER	AREA	REMAIN
12	HOMESTEAD DEVELOPMENT	SEE SH.8	
14A	GAIN ESTATE	3.38 AC.	18.60 AC.
14B	GAIN ESTATE	3880 S.F.	3.37 AC.
29	KETCHIKAN GATEWAY BOROUGH	2611 S.F.	0

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C3	34.74'	379.26'	5°14'57"	N67°48'24"W	34.73'
C4	25.58'	1535.00'	0°57'18"	N69°56'53"W	25.58'

LINE	BEARING	DISTANCE
L279	N81°44'37"E	22.83'
L280	N80°55'05"E	21.47'
L281	N81°40'35"E	16.39'
L282	N82°25'48"E	13.75'
L283	N83°10'55"E	12.06'
L284	N83°56'00"E	10.86'
L285	N84°41'03"E	9.95'
L286	N85°26'05"E	9.23'
L287	N80°55'02"E	22.39'
L288	N81°40'35"E	17.25'
L289	N82°25'48"E	14.60'
L290	N83°10'55"E	12.91'
L291	N83°56'00"E	11.71'
L292	N84°41'03"E	10.80'
L293	N85°26'05"E	10.08'
L294	S86°33'08"E	9.29'
L295	S85°48'06"E	10.02'
L296	S85°03'03"E	10.93'
L297	S84°17'58"E	12.13'

LINE	BEARING	DISTANCE
L298	S83°32'51"E	13.82'
L299	S82°47'38"E	16.46'
L300	S82°02'08"E	21.54'
L301	S86°33'08"E	10.08'
L302	S85°48'06"E	10.80'
L303	S85°03'03"E	11.71'
L304	S84°17'58"E	3.25'
L308	S78°59'56"E	21.23'
L309	S77°40'20"E	16.16'
L310	S76°21'12"E	13.52'
L311	S75°02'15"E	11.83'
L312	S73°43'22"E	10.63'
L313	S72°24'31"E	9.72'
L314	S71°05'43"E	9.00'
L315	S79°00'06"E	22.71'
L316	S77°40'21"E	17.55'
L317	S76°21'13"E	14.90'
L318	S75°02'15"E	13.21'
L319	S73°43'22"E	12.01'

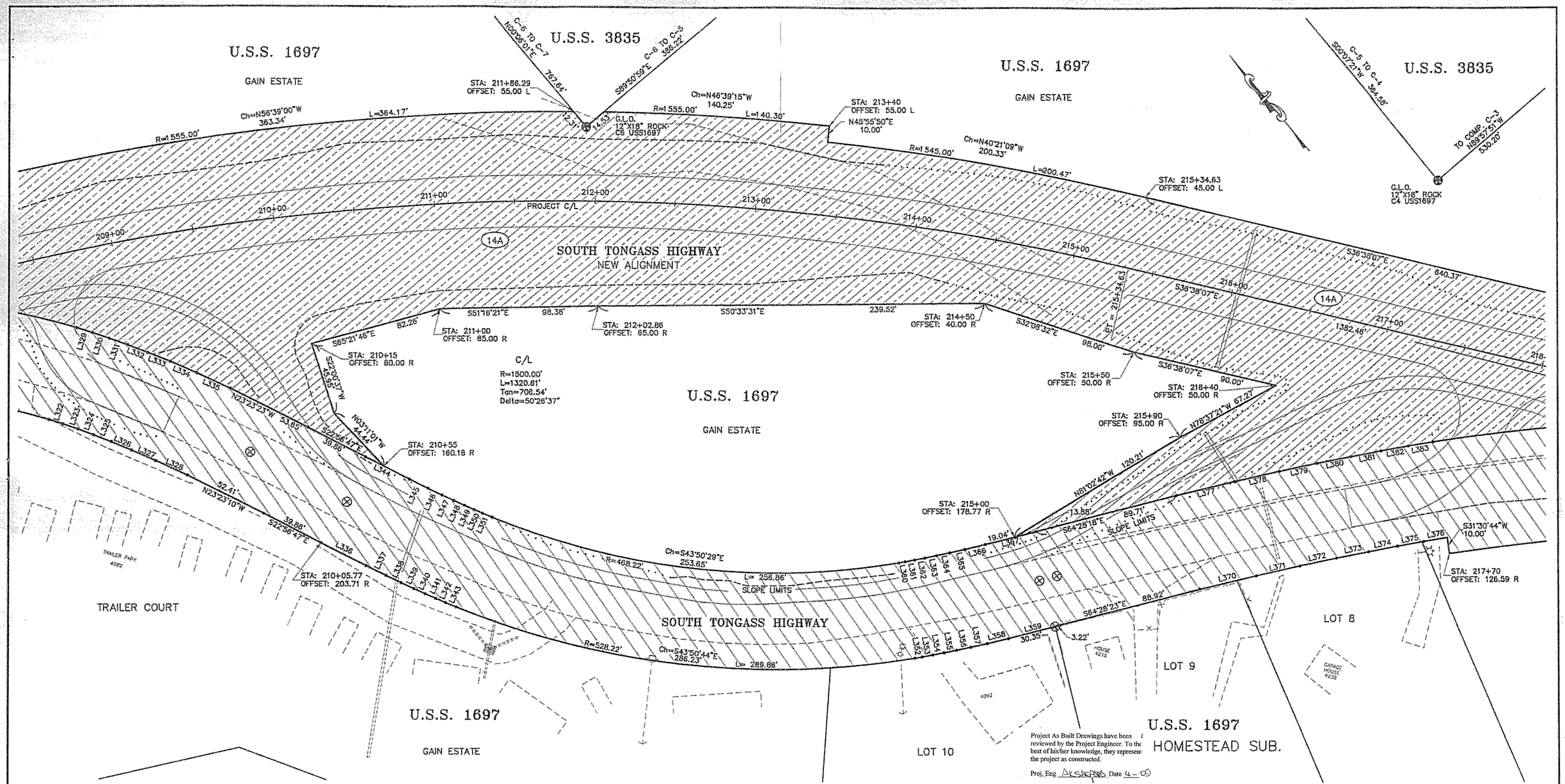
LINE	BEARING	DISTANCE
L320	S72°24'31"E	11.10'
L321	S71°05'42"E	10.38'
L322	S32°47'13"E	9.00'
L323	S31°28'24"E	9.72'
L324	S30°09'33"E	10.63'
L325	S28°50'40"E	11.83'
L326	S27°31'43"E	13.52'
L327	S26°12'35"E	16.16'
L328	S24°52'59"E	21.23'
L329	S32°47'13"E	10.38'
L330	S31°28'24"E	11.10'
L331	S30°09'33"E	12.01'
L332	S28°50'40"E	13.21'
L333	S27°31'43"E	14.90'
L334	S26°12'34"E	17.55'
L1039	N18°30'00"E	10.41'
L1040	N18°30'00"E	13.99'
L1041	S71°30'00"E	10.00'
L1042	N18°30'00"E	25.10'

DATE	REVISIONS	BY
10/05	MODIFY PARCEL 14A, E-14A	GY
7/05	MODIFY PARCEL 14A, ADD E-14A	GY
3/05	MODIFY PARCELS 12 & 29	GY
1/05	MODIFY LOT LINES, BLOCK 1A, USS 1782	GY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X8 OF 179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSKPWD Date 4-08

PARCEL	OWNER	AREA	REMAIN
14A	GAIN ESTATE	SEE SH.9	

LINE	BEARING	DISTANCE
L322	S32°47'13"E	9.00'
L323	S31°28'24"E	9.72'
L324	S30°09'33"E	10.63'
L325	S28°50'40"E	11.83'
L326	S27°31'43"E	13.52'
L327	S26°12'35"E	16.16'
L328	S24°52'59"E	21.23'
L329	S32°47'13"E	10.38'
L330	S31°28'24"E	11.10'
L331	S30°09'33"E	12.01'
L332	S28°50'40"E	13.21'
L333	S27°31'43"E	14.90'
L334	S26°12'34"E	17.55'
L335	S24°52'50"E	22.71'
L336	S23°09'15"E	31.14'
L337	S23°51'21"E	13.34'
L338	S24°29'49"E	10.46'
L339	S25°08'11"E	8.87'
L340	S25°46'32"E	7.85'
L341	S26°24'56"E	7.13'
L342	S27°03'21"E	6.58'

LINE	BEARING	DISTANCE
L343	S27°44'47"E	7.13'
L344	S23°09'08"E	30.53'
L345	S23°51'15"E	12.82'
L346	S24°29'34"E	9.77'
L347	S25°07'49"E	8.19'
L348	S25°46'05"E	7.17'
L349	S26°24'22"E	6.45'
L350	S27°02'41"E	5.91'
L351	S27°44'30"E	8.45'
L352	S59°50'04"E	4.59'
L353	S60°23'06"E	6.59'
L354	S61°02'42"E	7.14'
L355	S61°42'22"E	7.86'
L356	S62°22'11"E	8.87'
L357	S63°02'13"E	10.46'
L358	S63°42'49"E	13.55'
L359	S64°30'03"E	33.58'
L360	S59°48'38"E	4.07'
L361	S60°22'39"E	5.92'
L362	S61°02'22"E	6.46'
L363	S61°42'09"E	7.18'

LINE	BEARING	DISTANCE
L364	S62°22'03"E	8.19'
L365	S63°02'10"E	9.78'
L366	S63°42'47"E	12.83'
L367	S64°30'11"E	32.92'
L368	S22°57'02"E	38.91'
L369	S22°57'02"E	38.85'
L370	S63°34'12"E	36.17'
L371	S62°46'29"E	27.67'
L372	S61°59'07"E	23.27'
L373	S61°11'55"E	20.45'
L374	S60°24'46"E	18.45'
L375	S59°37'40"E	16.93'
L376	S58°51'48"E	14.94'
L377	S63°34'09"E	37.04'
L378	S62°46'23"E	28.49'
L379	S61°59'01"E	24.09'
L380	S61°11'48"E	21.27'
L381	S60°24'39"E	19.27'
L382	S59°37'33"E	17.75'
L383	S58°51'44"E	15.68'

DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X9	OF 179

U.S.S. 1769

U.S.S. 1697

TRACT B

GAIN ESTATE

TCE-14

E-14

14A

SOUTH TONGASS HIGHWAY

PROJECT C/L

SLOPE LIMITS

SEE DETAIL

DETAIL

LOT 2

LOT 3

LOT 4

LOT 5

LOT 6

LOT 7

LOT 8

U.S.S. 1697

HOMESTEAD SUB.

TONGASS NARROWS

EXISTING R.O.W. TO COMPUTED C-3, USS 1697

U.S.S. BOUNDARY

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. _____ Date _____

PARCEL	OWNER	AREA	REMAIN
14A	GAIN ESTATE	SEE SH. 9	

EASEMENT	OWNER	AREA	PURPOSE
E-14	GAIN ESTATE	152 S.F.	UTILITY

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-14	GAIN ESTATE	180 S.F.	UTILITY

LINE	BEARING	DISTANCE
L375	S59°37'40"E	16.93'
L376	S58°51'48"E	14.94'
L377	S63°34'09"E	37.04'
L383	S58°51'44"E	15.68'
L384	S42°25'27"E	14.73'
L385	S41°39'41"E	16.80'
L386	S40°52'33"E	18.32'
L387	S40°05'23"E	20.32'
L388	S39°18'08"E	23.14'
L389	S38°30'45"E	27.54'
L390	S37°43'00"E	36.02'
L391	S42°25'23"E	15.69'
L392	S41°39'33"E	17.76'
L393	S40°52'26"E	19.27'
L394	S40°05'17"E	21.27'
L395	S39°18'04"E	24.09'
L396	S38°30'42"E	28.50'
L397	S37°42'56"E	37.05'

DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION

&

PUBLIC FACILITIES

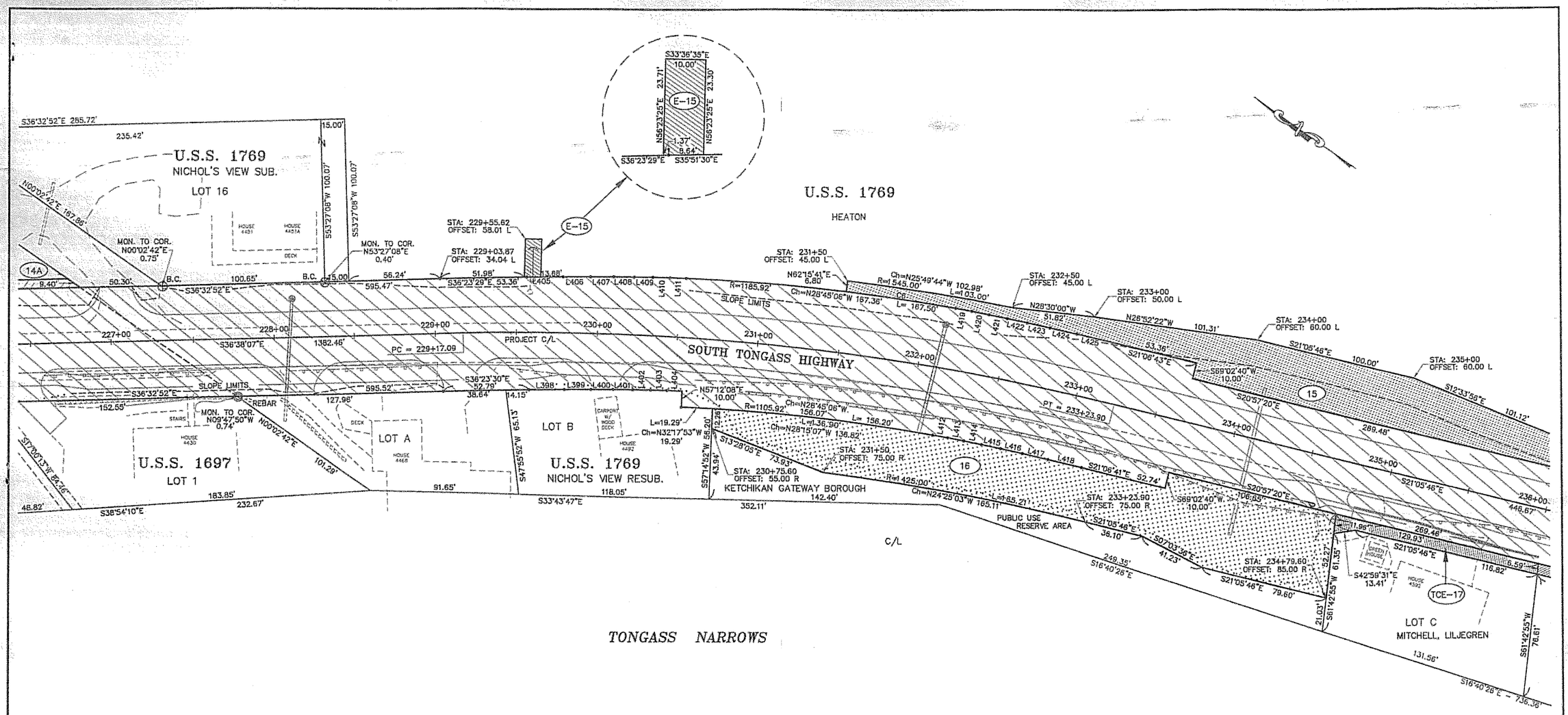
RIGHT OF WAY MAP

ALASKA PROJECT NO.

STP-0902(20) 71670

SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X10 OF 179	



TONGASS NARROWS

PARCEL	OWNER	AREA	REMAIN
14A	GAIN ESTATE	SEE SH 9	
15	HEATON	0.89 AC.	29.12 AC.
16	KETCHIKAN GATEWAY BOROUGH	14,084 S.F	7,337 S.F.

EASEMENT	OWNER	AREA	PURPOSE
E-15	HEATON	235 S.F.	UTILITY

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-17	MITCHELL, LILJEGREN	903 S.F.	CONST. ACCESS

Project As Built Drawings have been reviewed by the Project Engineer. To th best of his/her knowledge, they represen the project as constructed.

Proj. Eng MICHELAND Date 4-09

LINE	BEARING	DISTANCE
L398	S35°51'29"E	21.70'
L399	S35°23'02"E	16.61'
L400	S34°54'46"E	13.96'
L401	S34°26'34"E	12.27'
L402	S33°58'24"E	11.07'
L403	S33°30'14"E	10.16'
L404	S33°02'05"E	9.44'
L405	S35°51'30"E	22.32'
L406	S35°23'02"E	17.19'
L407	S34°54'46"E	14.54'
L408	S34°26'34"E	12.85'
L409	S33°58'24"E	11.85'
L410	S33°30'14"E	10.74'
L411	S33°02'05"E	10.02'

LINE	BEARING	DISTANCE
L412	S24°28'07"E	9.36'
L413	S23°59'58"E	10.08'
L414	S23°31'48"E	10.99'
L415	S23°03'38"E	12.19'
L416	S22°35'26"E	13.88'
L417	S22°07'10"E	16.53'
L418	S21°38'44"E	21.62'
L419	S24°28'07"E	10.02'
L420	S23°59'58"E	10.74'
L421	S23°31'48"E	11.85'
L422	S23°03'38"E	12.85'
L423	S22°35'26"E	14.54'
L424	S22°07'10"E	17.19'
L425	S21°38'42"E	22.32'

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C6	68.36'	1185.92'	3°18'09"	N26°21'24"W	68.35'

7/05	MODIFY PARCEL 15	GY
5/05	MODIFY TCE-17, DELETE E-17	GY
4/05	MODIFY E-17	GY
2/05	MODIFY PARCEL 16	GY
DATE	REVISIONS	BY

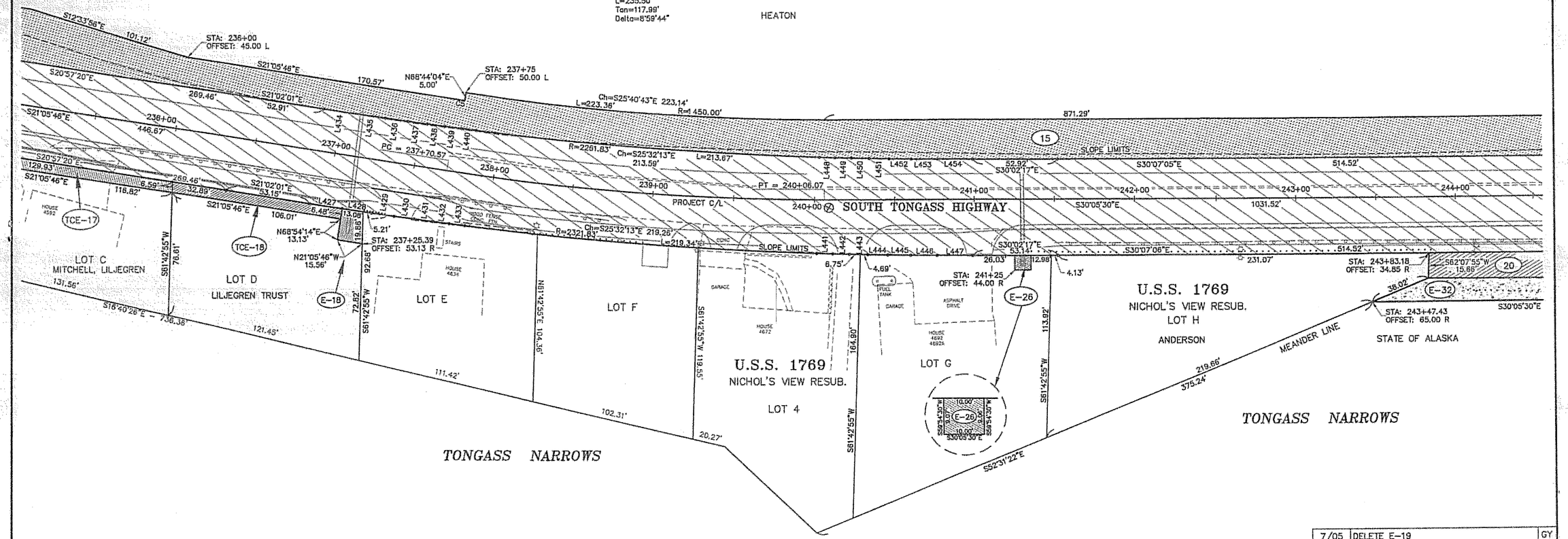
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X11	OF 179

Project As Built Drawings have been reviewed by the Project Engineer. To th best of his/her knowledge, they represen the project as constructed.

Proj. Engr AKSHEPARD Date 4-05



PARCEL	OWNER	AREA	REMAIN
15	HEATON	SEE SH.12	
20	KETCHIKAN GATEWAY BOROUGH	6,000 S.F.	0

EASEMENT	OWNER	AREA	PURPOSE
E-18	LILJEGREN TRUST	281 S.F.	DRAINAGE
E-26	STRUNK	91 S.F.	DRAINAGE
E-32	STATE OF ALASKA	4,279 S.F.	HIGHWAY

TEMPORARY CONSTRUCTION EASEMENT			
TCE NO.	OWNER	AREA	PURPOSE
TCE-17	MITCHELL, LILJEGREN	SEE SH.12	
TCE-18	LILJEGREN TRUST	687 S.F.	CONSTRUCTION ACCESS

LINE	BEARING	DISTANCE
L427	S21°18'01"E	20.79'
L428	S21°31'14"E	18.29'
L429	S21°46'23"E	14.33'
L430	S22°00'29"E	12.64'
L431	S22°14'34"E	11.44'
L432	S22°28'39"E	10.53'
L433	S22°42'43"E	9.81'
L434	S21°18'01"E	21.84'
L435	S21°32'15"E	16.73'
L436	S21°46'23"E	14.09'
L437	S22°00'29"E	12.40'
L438	S22°14'34"E	11.20'
L439	S22°28'39"E	10.29'
L440	S22°42'43"E	9.56'

LINE	BEARING	DISTANCE
L441	S28°21'42"E	9.81'
L442	S28°35'46"E	10.53'
L443	S28°49'51"E	11.44'
L444	S29°03'56"E	12.64'
L445	S29°18'02"E	14.33'
L446	S29°32'10"E	16.98'
L447	S29°46'24"E	22.10'
L448	S28°21'42"E	9.56'
L449	S28°35'46"E	10.29'
L450	S28°49'51"E	11.20'
L451	S29°03'56"E	12.40'
L452	S29°18'02"E	14.09'
L453	S29°32'10"E	16.73'
L454	S29°46'24"E	21.84'

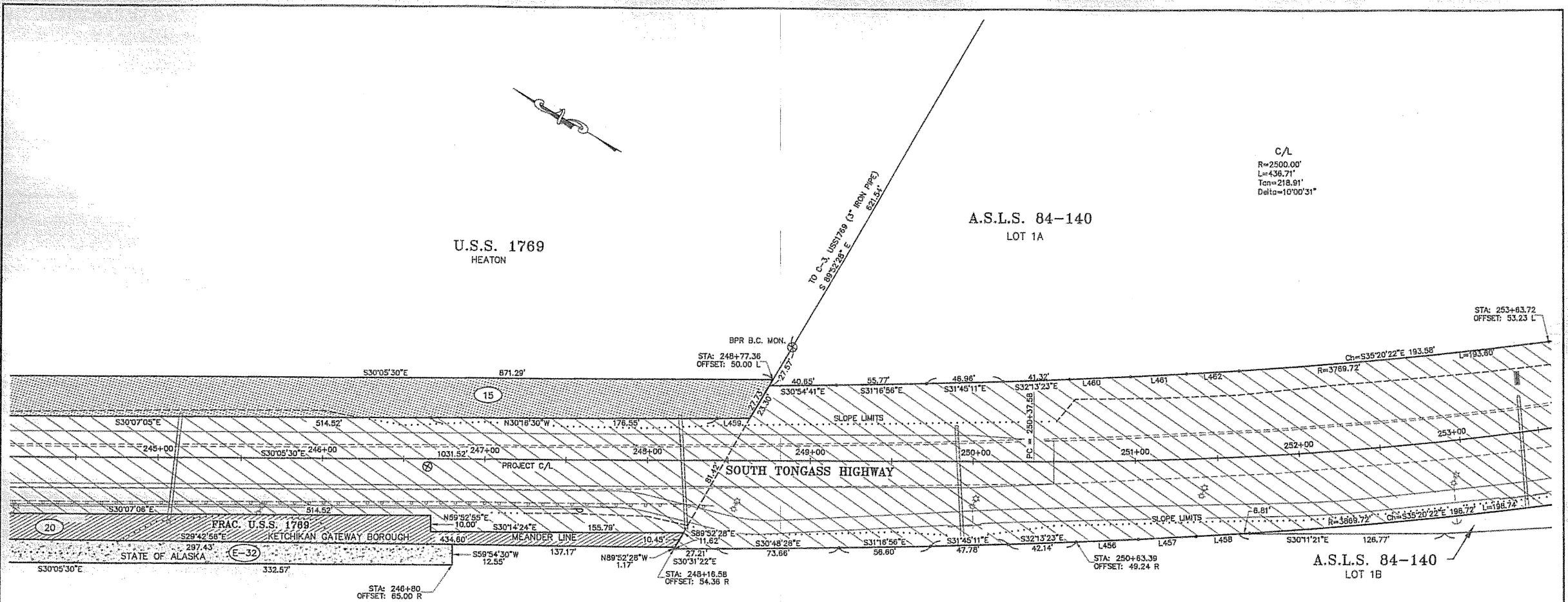
CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C5	4.30'	1455.00'	0°10'10"	S21°10'51"E	4.30'

7/05	DELETE E-19	GY
7/05	MODIFY PARCEL 15	GY
5/05	DELETE PARCEL 18, ADD E-18, TCE-18	GY
4/05	CHANGE E-18A & E-18B TO PARCEL 18	GY
2/05	DELETE E-18, ADD E-18A & E-18B	GY
1/05	CHANGE PARCEL 19 INTO E-19	GY
DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X12	OF 179



UNOCCUPIED TIDELANDS
STATE OF ALASKA

TONGASS NARROWS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ALSTROM Date 4-09

PARCEL	OWNER	AREA	REMAIN
15	HEATON	SEE SH.12	
20	KETCHIKAN GATEWAY BOROUGH	SEE SH.13	

EASEMENT	OWNER	AREA	PURPOSE
E-32	STATE OF ALASKA	SEE SH.13	

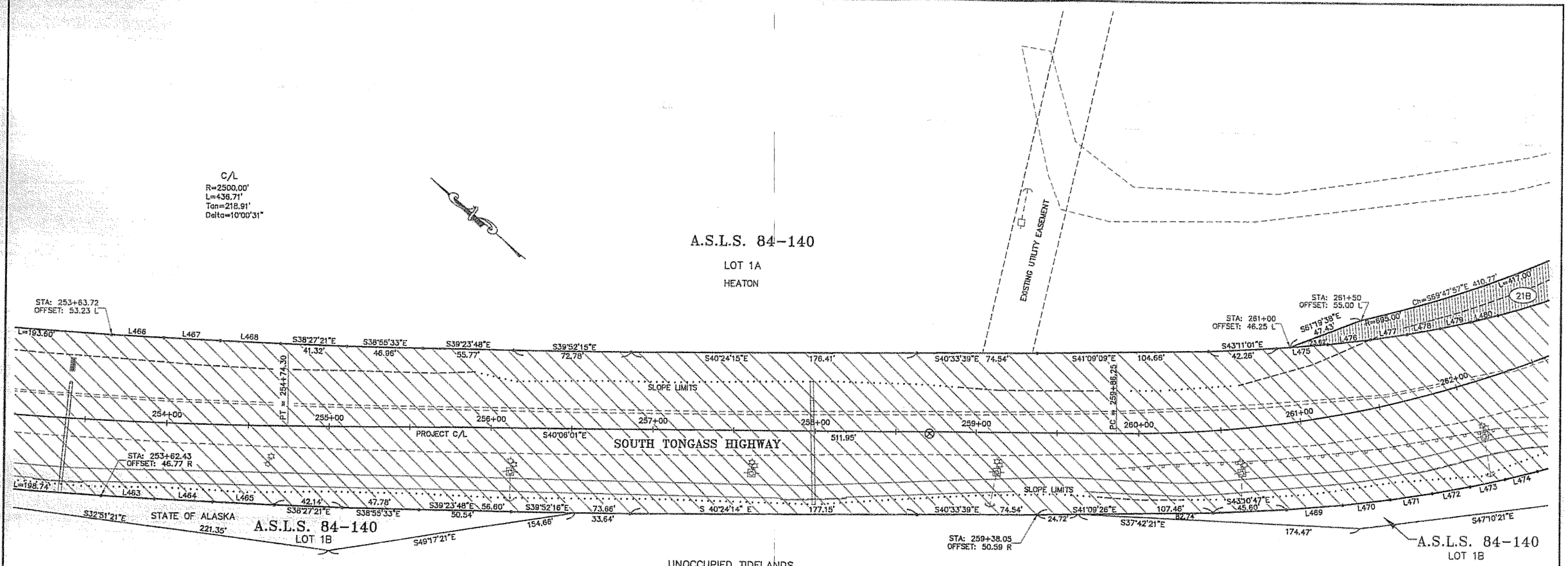
LINE	BEARING	DISTANCE
L456	S32°41'34"E	38.14'
L457	S33°09'43"E	35.10'
L458	S33°37'52"E	32.70'
L459	S30°38'19"E	20.25'
L460	S32°41'34"E	37.32'
L461	S33°09'43"E	34.28'
L462	S33°37'52"E	31.88'

DATE	REVISIONS	BY
07/05	MODIFY PARCEL 15, DELETE PARCEL 21A	GY
03/05	DELETE E-22D, E-22E	GY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X13 OF 189



UNOCCUPIED TIDELANDS
STATE OF ALASKA

C/L
R=750.00'
L=893.14'
Tan=508.08'
Delta=68°13'51"

TONGASS NARROWS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-09

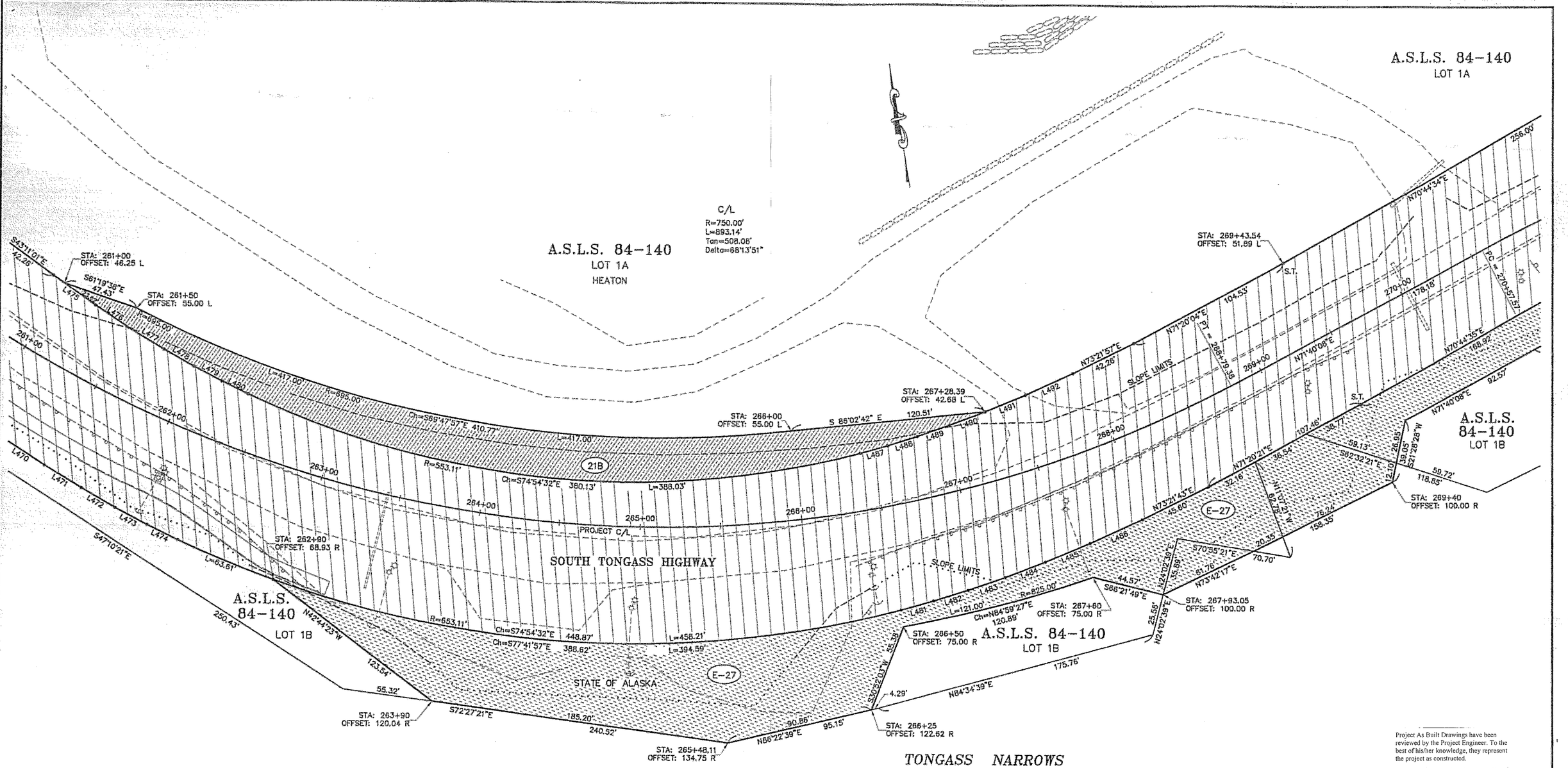
PARCEL	OWNER	AREA	REMAIN
21B	HEATON	12,123 S.F.	31.99 AC.

LINE	BEARING	DISTANCE
L463	S37°02'52"E	32.70'
L464	S37°31'01"E	35.10'
L465	S37°59'10"E	38.14'
L466	S37°02'52"E	31.88'
L467	S37°31'01"E	34.26'
L468	S37°59'10"E	37.32'
L469	S44°59'01"E	35.28'
L470	S46°46'25"E	29.98'
L471	S48°33'35"E	26.60'
L472	S50°20'39"E	24.19'
L473	S52°07'39"E	22.37'
L474	S53°54'37"E	20.93'
L475	S44°59'02"E	32.14'
L476	S46°46'26"E	26.86'
L477	S48°33'35"E	23.48'
L478	S50°20'39"E	21.08'
L479	S52°07'39"E	19.26'
L480	S53°54'36"E	17.82'

DATE	REVISIONS	BY
03/05	DELETE E-22A, E-22B, E-22C	GY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'	
CHECKED	DATE	SHEET X14 OF 179	



PARCEL	OWNER	AREA	REMAIN
21B	HEATON	SEE SH.15	

EASEMENT	OWNER	AREA	PURPOSE
E-27	STATE OF ALASKA	1.83 AC.	HIGHWAY

LINE	BEARING	DISTANCE
L470	S46°46'25"E	29.98'
L471	S48°33'35"E	26.60'
L472	S50°20'39"E	24.19'
L473	S52°07'39"E	22.37'
L474	S53°54'37"E	20.93'
L475	S44°59'02"E	32.14'
L476	S46°46'26"E	28.86'
L477	S48°33'35"E	23.48'
L478	S50°20'39"E	21.08'
L479	S52°07'39"E	19.26'
L480	S53°54'36"E	17.82'
L481	N84°05'33"E	20.93'

LINE	BEARING	DISTANCE
L482	N82°18'34"E	22.37'
L483	N80°31'34"E	24.19'
L484	N78°44'31"E	26.60'
L485	N76°57'21"E	29.98'
L486	N75°09'57"E	35.26'
L487	N84°05'32"E	17.82'
L488	N82°18'34"E	19.26'
L489	N80°31'34"E	21.08'
L490	N78°44'31"E	23.48'
L491	N76°57'21"E	26.86'
L492	N75°09'58"E	32.14'

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ARSWANDS Date 4-05

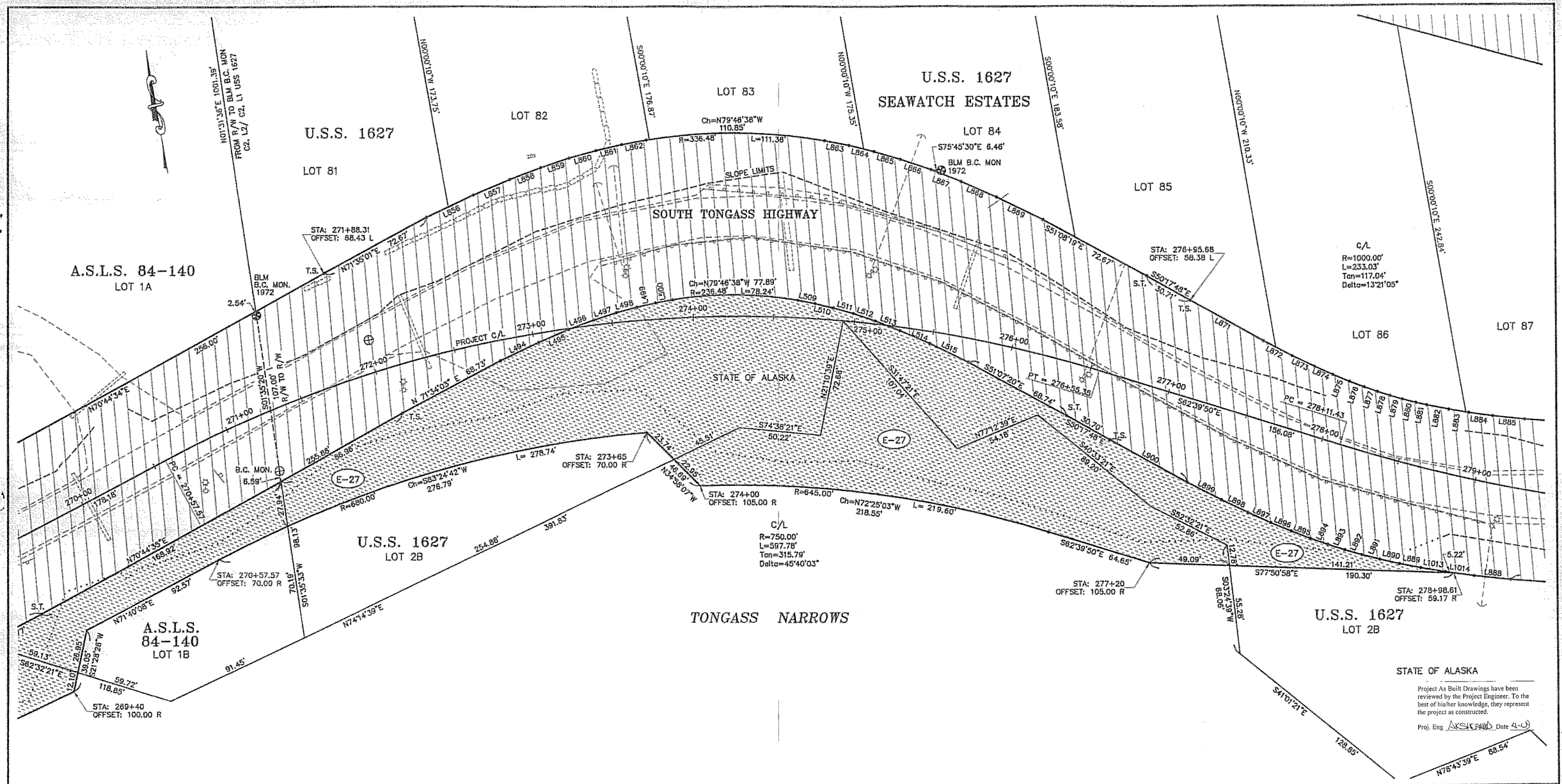
DATE	REVISIONS	BY

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN ROW	DATE 11/2004	SCALE 1"=30'
CHECKED	DATE	SHEET X15 OF 179



EASEMENT	OWNER	AREA	PURPOSE
E-27	STATE OF ALASKA	SEE SH.16	HIGHWAY

LINE	BEARING	DISTANCE
L494	N74°25'39"E	26.94'
L495	N76°57'04"E	20.27'
L496	N79°27'47"E	16.76'
L497	N81°58'11"E	14.50'
L498	N84°28'26"E	12.91'
L499	N86°58'36"E	11.69'
L500	N89°28'42"E	10.73'
L509	S89°01'58"E	10.73'
L510	S86°31'53"E	11.69'
L511	S84°01'42"E	12.91'
L512	S81°31'27"E	14.50'
L513	S79°01'03"E	16.76'
L514	S56°30'20"E	20.27'
L515	S53°58'56"E	26.94'
L856	N74°24'57"E	31.63'
L857	N76°57'01"E	24.67'
L858	N79°27'46"E	21.14'
L859	N81°58'10"E	18.88'
L860	N84°28'26"E	17.27'

LINE	BEARING	DISTANCE
L861	N86°58'36"E	16.06'
L862	N89°28'46"E	15.10'
L863	S69°02'02"E	15.10'
L864	S66°31'52"E	16.06'
L865	S64°01'42"E	17.27'
L866	S61°25'32"E	20.37'
L867	S58°53'40"E	20.22'
L868	S56°28'32"E	24.09'
L869	S53°58'13"E	31.63'
L871	S50°49'47"E	51.77'
L872	S52°40'11"E	20.46'
L873	S54°17'44"E	15.44'
L874	S55°54'47"E	12.80'
L875	S57°31'39"E	11.11'
L876	S59°08'24"E	9.91'
L877	S60°45'07"E	9.00'
L878	S62°21'48"E	8.27'
L879	S63°59'31"E	8.27'
L880	S65°36'10"E	9.00'

LINE	BEARING	DISTANCE
L881	S66°58'24"E	6.94'
L882	S68°36'21"E	14.08'
L883	S70°26'30"E	12.80'
L884	S72°03'33"E	15.44'
L885	S73°41'06"E	20.46'
L889	S68°49'39"E	13.93'
L890	S67°12'53"E	12.72'
L891	N65°36'10"W	11.81'
L892	N63°59'27"W	11.10'
L893	N62°21'50"W	11.10'
L894	N60°45'07"W	11.81'
L895	N59°08'24"W	12.72'
L896	N57°31'38"W	13.93'
L897	N55°54'46"W	15.62'
L898	N54°17'42"W	18.27'
L899	N52°39'48"W	23.48'
L900	N50°50'19"W	54.30'
L1013	S70°26'30"E	15.62'
L1014	S72°03'35"E	18.27'

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. _____ Date 4-09

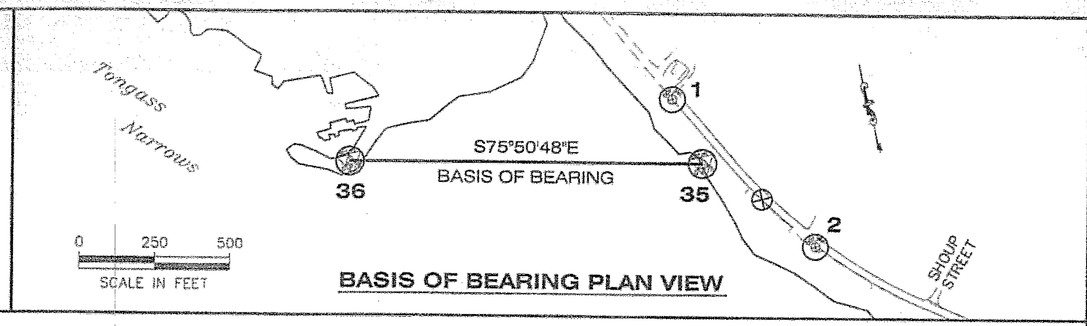
DATE	REVISIONS	BY

STATE OF ALASKA

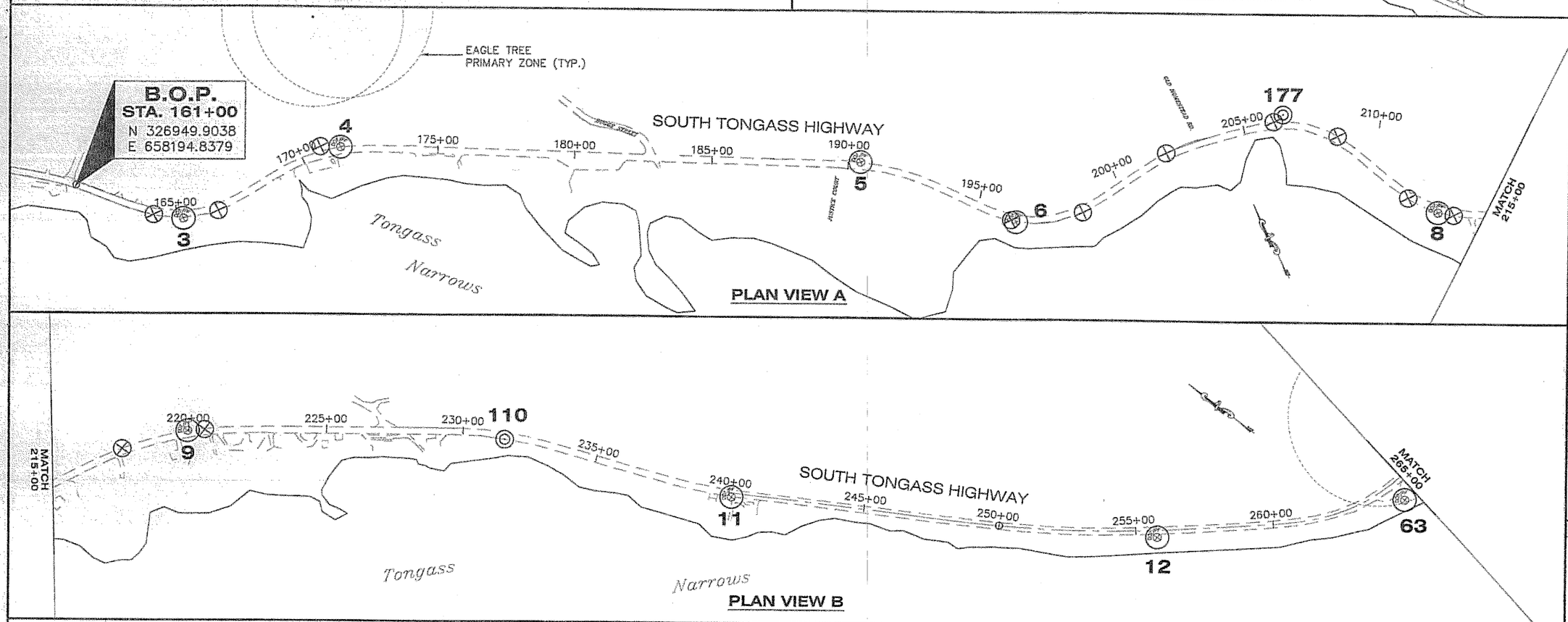
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
RIGHT OF WAY MAP
ALASKA PROJECT NO.
STP-0902(20) 71670
SOUTH TONGASS HIGHWAY STAGE I

DRAWN	ROW	DATE	11/2004	SCALE	1"=30'
CHECKED		DATE		SHEET	X16 OF 179

NOTE:
Whether listed or not, all monuments or property markers or accessories which will be disturbed or buried shall be referenced prior to being disturbed and re-established in their original position and a record of monument form in accordance with A.S. 34.65.040 shall be submitted to the construction engineer for review prior to recording. Coordinate values listed are for informational purposes and should be used to reset monuments only as a last resort. Horizontal and vertical control notes are on sheet A3.
If any pair of control points disagrees from published value by more than 1:10,000 horizontally or vertically then a third network point must be tied to ascertain which point is in error or has been disturbed.



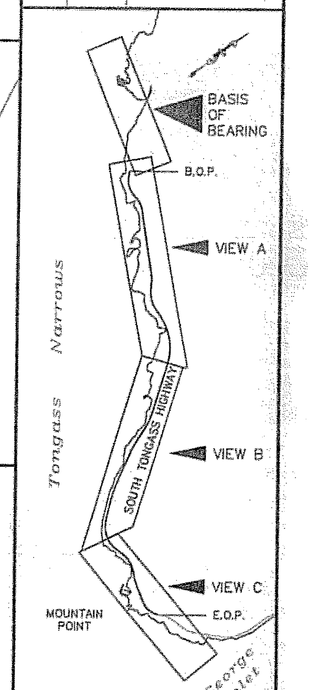
BASIS OF BEARING PLAN VIEW



PLAN VIEW A

PLAN VIEW B

PLAN VIEW C



PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng JK SHEPARD Date 3-09

0 200 400
SCALE IN FEET
ALL VIEWS EXCEPT WHERE NOTED

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: O:\Ktn\71670\Planset\A2_Control.dwg
Tue, 25/Apr/06 01:34PM trobertson
TAB: A2

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: R. MURPHY

STATE OF ALASKA 49TH Timothy Reed No. 10613 REGISTERED PROFESSIONAL LAND SURVEYOR 6/5/06

DESIGNED BY: T. REED
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SURVEY CONTROL PLAN

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
A2	179

HORIZONTAL CONTROL

Horizontal Control for this project is based on the DOT/PF Ketchikan South Tongass Grid 2000. The intent of this local ground distance based coordinate system is to relate it to Alaska State Plane while preserving ground distances.

The DOT/PF Ketchikan South Tongass Grid -2000 System is a local ground coordinate system based at DOT/PF GPS control station 95-K-4 (#36). It relates to AKSPC zone 1 NAD83 (92) through the following parameters:
Zone = NAD83 AKSPC ZONE 1
Grid Scale = 0.999900264
Convergence = +1°44'48"
Translation about DOT/PF control point 95-K-4 as follows:
AKSPC Northing = 1277612.22594 FT US
AKSPC Easting = 3117379.86890 FT US
Local Northing = 328083.33333 FT US
Local Easting = 656166.66667 FT US

Coordinates for this project established with SKI 2.0 static GPS processing and Starnet least squares adjustment. Units are US Survey Feet, all metric conversions shall use 3937/1200 scale factor.

Project Specific Basis of Horizontal Control

95-K-4 : 2" Brass Cap located in the breakwater of Saxman harbor.
NAD83(1992) Lat 55°18'51.8820" N Lon 131°35'43.1545"W
KTN_S-Tongass-Grid N 328083.3333' E 656166.6667'
AKSPC N 1277612.22594' E 3117379.86890'

95-K-6 : 2" Brass Cap in bedrock on beach located adjacent to 2976 S. Tongass
NAD83(1992) Lat 55°18'49.0933"N Lon 131°35'23.7309"W
KTN_S-Tongass-Grid N 327799.9386' E 657290.4836'
AKSPC N 1277363.2420' E 3118511.6888'

VERTICAL CONTROL

The Vertical Datum for Ketchikan South Tongass Grid 2000 is Mean Lower Low Water based on levels from the National Ocean Service Benchmark NO. 37. The record elevation for NO. 37 is 35.09' above MLLW based on the 1960-1978 tidal epoch for tide station 9450460. The project specific basis of vertical control is point #36 "95-K-4" with an observed elevation of 22.21' above MLLW.

CONTROL MONUMENTS

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
36	141+07.37	951.7185 R	328083.3333	656166.6667	22.21	GPS_BC_95-K-4
1	146+42.14	15.04 R	328029.5247	657243.9047	35.42	ALCTRL2"_ST-1
35	148+67.61	77.26 R	327799.9386	657290.4836	19.27	GPS_BC_95-K-6
2	153+19.73	18.90 R	327444.9609	657590.5854	31.64	ALCTRL2"_ST-2
3	165+25.04	35.71R	326652.8828	658509.6954	32.71	ALCTRL2"_ST-3
4	171+44.11	9.49 L	326640.7617	659136.5600	33.26	ALCTRL2"_ST-4
5	190+44.66	15.48 L	325769.8790	660827.8942	62.35	ALCTRL2"_ST-5
6	196+29.24	93.04 R	325323.6423	661246.3343	43.41	ALCTRL2"_ST-6
177	206+47.68	31.16 L	325262.2923	662293.5063	31.43	REBAR_ST-7USE
8	213+07.20	270.51 R	324693.0927	662647.2364	41.48	ALCTRL2"_ST-8
9	219+95.39	9.07 R	324338.7572	663254.0997	48.96	ALCTRL2"_ST-9
110	231+55.78	16.06 R	323395.0931	663923.7524	35.39	REBAR_FND
11	240+10.60	19.33 R	322606.8607	664255.1131	35.45	ALCTRL2"_ST-11
12	255+77.53	27.43 R	321274.4890	665083.0320	33.88	ALCTRL2"_ST-12
63	264+58.92	95.82 R	320641.1814	665739.3587	41.28	ALCTRL2"_RESET13
14	274+06.36	75.38 L	320911.4858	666701.2329	44.62	ALCTRL2"_ST-14
15	279+52.45	25.25 R	320609.7866	667186.0154	38.34	ALCTRL2"_ST-15
16	287+51.87	18.77 R	320469.8358	667977.6509	31.55	ALCTRL2"_ST-16

PROPOSED CONTROL MONUMENTS

STATION	REMARKS
162+80 RT	MONUMENT & CASE
166+35 RT	MONUMENT & CASE
171+70 LT	MONUMENT & CASE
189+50 LT	MONUMENT & CASE
192+50 LT	MONUMENT & CASE
195+35 RT	MONUMENT & CASE
199+70 RT	MONUMENT & CASE
205+55 LT	MONUMENT & CASE
211+00 LT	MONUMENT & CASE
216+00 LT	MONUMENT & CASE
222+50 LT	MONUMENT & CASE
231+70 LT	MONUMENT & CASE
238+00 LT	MONUMENT & CASE
241+30 RT	MONUMENT & CASE
249+75 RT	MONUMENT & CASE

CONTROL MONUMENT NOTE:
The locations of the proposed control monuments are approximate. Set primary monuments and cases in the pavement shoulder in line-of-sight with each other and approximately 2.5' from the edge of pavement. The intent is to provide a monumented traverse line for the project corridor.

CENTERLINE MONUMENTS

STATION	OFFSET	NORTHING	EASTING
N/A	N/A	328883.3485	656829.1402
141+77.11	0.37 R	328451.0003	657046.8595
150+85.32	14.44 R	327638.8719	657455.8537
155+33.93	13.25 R	327289.4731	657740.7971
159+37.76	0.02 R	327051.8540	658068.7801
160+88.63	7.35 L	326963.0276	658191.3969
164+23.00	24.17 R	326712.2092	658419.9178
166+48.17	28.37 R	326622.9497	658635.8792
170+75.64	28.48 L	326674.2334	659071.5761
191+59.15	16.34 L	325705.9964	660925.0229
194+27.99	25.96 R	325496.2022	661100.8921
194+52.18	30.81 R	325476.6535	661117.2815
196+12.71	85.52 R	325338.4752	661233.1488
198+51.14	91.49 R	325250.6294	661481.9892
199+90.24	50.58 R	325277.7712	661633.1322
200+19.26	43.83 R	325283.0411	661662.4625
202+05.13	0.53 R	325316.8053	661850.2956
204+22.77	9.37 R	325282.5992	662064.4977
206+12.05	8.70 L	325252.6744	662252.0924
208+47.11	57.22 R	325103.1746	662440.0837
209+64.83	142.21 R	324975.2993	662494.2194
210+27.27	180.17 R	324913.2161	662520.5087
211+64.49	249.31 R	324787.6878	662573.6772
213+76.03	259.89 R	324659.7205	662694.2311
215+24.13	201.76 R	324600.7851	662819.0808
215+35.57	196.44 R	324595.9328	662829.3634
217+60.48	76.32 R	324487.1364	663059.9558
220+57.66	4.68 R	324291.4068	663294.7788
231+35.24	9.59 L	323425.2145	663936.8229
238+94.03	9.31 R	322715.3651	664208.6762
240+08.75	5.05 R	322615.6228	664266.5369
246+64.60	4.75 R	322048.3173	664595.6322
252+64.85	14.84 R	321528.2151	664897.3607
258+71.00	1.16 R	321066.9291	665292.1623
262+87.34	62.26 R	320738.2346	665573.4972
267+29.64	16.85 R	320701.3079	666032.9845
272+01.53	20.23 L	320858.7057	666483.5609
273+31.82	62.11 L	320906.0363	666619.0005
275+16.48	62.71 L	320873.1011	666815.7846
278+32.76	23.22 R	320658.9108	667073.7536
279+69.64	3.11 R	320625.1490	667209.6501
284+22.32	0.03 L	320516.0377	667649.1436
284+43.92	0.03 L	320510.8172	667670.1111
286+13.02	8.77 R	320469.8556	667835.2616

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: R. MURPHY
DESIGNED BY: T. REED
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SURVEY CONTROL DETAILS

PATH: O:\Ktn\71670\Planset\A2_Control.dwg
TAB: A3 Thu, 20/Apr/06 01:47PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	A3	179

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AK Shepard Date 3-09

SOUTH TONGASS HIGHWAY ALIGNMENT TABLES

Tangent Data			
Description	Station	Northing	Easting
Start:	157+30.56	327173.5272	657901.084
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	13° 54' 07"	Type:	LEFT
Radius:	1500	DOC:	03° 49' 11"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	226.17	Course:	S 54° 02' 49" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	159+56.73	327040.7364	658084.1512
BOP BEGINS MID-CURVE @ STATION 161+00. N 326,949.9038 E 658,194.8379			
RP:		326069.3367	657379.6068
PT:	161+56.59	326910.4933	658235.4431
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	06° 32' 34"	Type:	RIGHT
Radius:	1200	DOC:	04° 46' 29"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	127.13	Course:	S 44° 30' 16" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	162+83.72	326819.8248	658324.5563
RP:		327240.4031	658752.4745
PT:	168+04.10	326542.0119	658796.3828
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	49° 41' 32"	Type:	LEFT
Radius:	600	DOC:	09° 32' 57"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	133.84	Course:	N 85° 48' 12" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	169+37.94	326651.8063	658929.8635
RP:		326053.4151	658973.7718
PT:	172+73.16	326584.092	659253.7396
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	32° 00' 41"	Type:	RIGHT
Radius:	600	DOC:	09° 32' 57"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	1725.03	Course:	S 62° 11' 07" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	189+98.19	325779.1692	660779.4651
RP:		324894.7076	660312.8521
PT:	192+47.64	325636.6034	660983.3673
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	14° 17' 32"	Type:	RIGHT
Radius:	1000	DOC:	05° 43' 46"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	149.96	Course:	S 47° 53' 35" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	193+97.60	325536.0516	661094.6235
RP:		326129.5683	661631.0356
PT:	199+44.73	325330.6078	661590.2655
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	39° 11' 08"	Type:	LEFT
Radius:	800	DOC:	07° 09' 43"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	269.29	Course:	S 87° 04' 44" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	202+14.02	325316.8843	661859.2013
RP:		323818.8334	661782.7572
PT:	215+34.63	324713.9108	662986.4334
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	50° 26' 37"	Type:	RIGHT
Radius:	1500	DOC:	03° 49' 11"

Tangent Data			
Parameter	Value	Parameter	Value
Length:	1382.46	Course:	S 36° 38' 07" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	229+17.09	323604.5538	663811.3732
RP:		322709.4764	662607.697
PT:	233+23.90	323249.3791	664007.163
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	15° 32' 20"	Type:	RIGHT
Radius:	1500	DOC:	03° 49' 11"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	446.67	Course:	S 21° 05' 46" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	237+70.57	322832.6507	664167.9335
RP:		323372.5533	665567.3995
PT:	240+06.07	322620.4757	664269.5631
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	08° 59' 44"	Type:	LEFT
Radius:	1500	DOC:	03° 49' 11"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	1031.52	Course:	S 30° 05' 30" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	250+37.58	321727.9823	664786.7503
RP:		322981.4451	666949.8109
PT:	254+74.30	321371.1235	665037.518
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	10° 00' 31"	Type:	LEFT
Radius:	2500	DOC:	02° 17' 31"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	511.95	Course:	S 40° 06' 01" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	259+86.25	320979.5242	665367.2795
RP:		321462.6207	665940.9674
PT:	266+79.38	320750.6799	666176.8495
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	68° 13' 51"	Type:	LEFT
Radius:	750	DOC:	07° 38' 22"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	178.18	Course:	N 71° 40' 08" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	270+57.57	320806.7207	666345.9922
RP:		320094.78	666581.8742
PT:	276+55.35	320761.0254	666926.2625
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	45° 40' 03"	Type:	RIGHT
Radius:	750	DOC:	07° 38' 22"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	156.08	Course:	S 62° 39' 50" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	278+11.43	320689.3531	667064.9299
RP:		321577.6803	667524.1409
PT:	280+44.46	320607.3202	667282.4775
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	13° 21' 05"	Type:	LEFT
Radius:	1000	DOC:	05° 43' 46"
Tangent Data			
Parameter	Value	Parameter	Value
Length:	405.54	Course:	S 76° 00' 55" E
EOP STATION 284+50 N 320,509.3200, E 667,675.0000			

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 3-09

CHECKED BY: R. MURPHY

STATE OF ALASKA · 49TH · Timothy Reed No. 10813 · REGISTERED PROFESSIONAL LAND SURVEYOR · 5-5-06

DESIGNED BY: T. REED

DRAWN BY: R. SNYDER

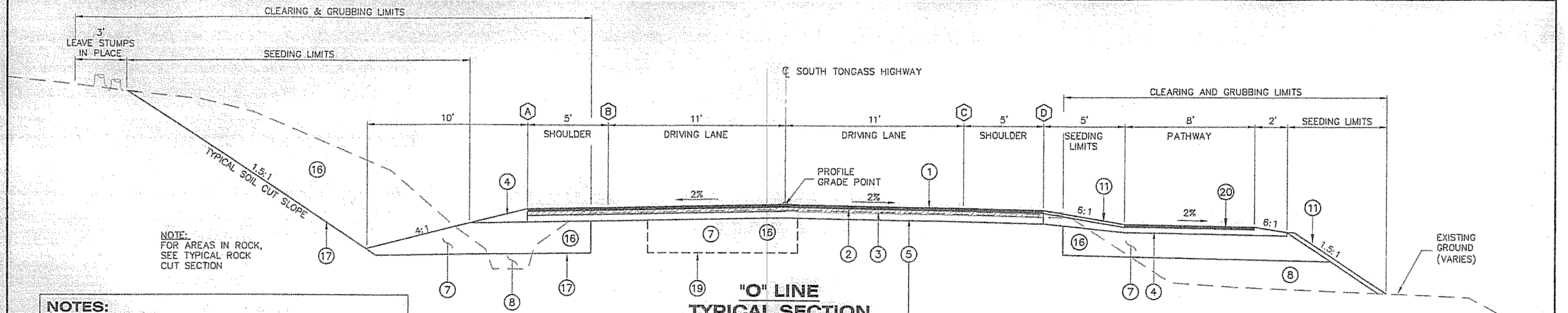
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SURVEY CONTROL DETAILS

PATH: O:\Ktn\71670\Planset\A2_Control.dwg
TAB: A4 Fri, 05/May/06 01:26Pu krobertson

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION				
			MGS-STP-0902(20)	2006	A4	179



"O" LINE TYPICAL SECTION

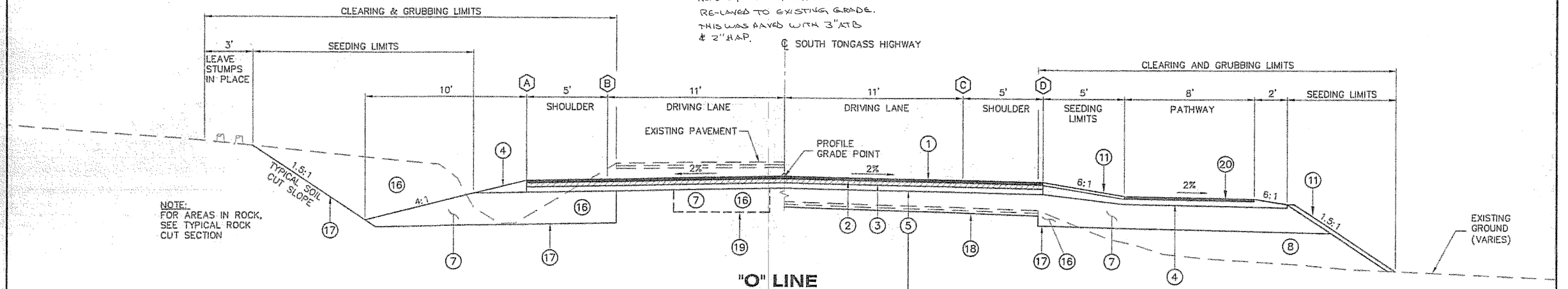
"O" Sta. 172+50 TO 178+00
"O" Sta. 183+00 TO 192+50
~~"O" Sta. 220+50 TO 231+00~~
~~"O" Sta. 241+50 TO 250+50~~

FROM 220+50 TO 241+50 ROADWAY WAS PULVARIZED AND RE-LAYED TO EXISTING GRADE. THIS WAS PAVED WITH 3" ATB & 2" HAP.

NOTES:

1. SEE TYPICAL SECTION NOTES ON SHEET B2.
2. FOR VARIATIONS TO TYPICAL SECTIONS, SEE SECTION LT & RT, SHEETS B3-B4. "O" STA. 192+50 TO 220+50, SEE NEW CONSTRUCTION TYPICAL SECTIONS, SHEETS B5-B6.

4" CRUSHED ASPHALT BASE COURSE SHALL CONSIST OF EXISTING ASPHALT PAVEMENT PULVERIZED IN PLACE, PORTLAND CEMENT, EMULSIFIED ASPHALT, AND AGGREGATE FOR CABC PER SECTION 308. USE AGGREGATE FOR CABC AT LOCATIONS APPROVED BY THE ENGINEER.



"O" LINE TYPICAL SECTION

"O" Sta. 161+00 TO 172+50
"O" Sta. 178+00 TO 183+00
~~"O" Sta. 231+00 TO 241+50~~

4" CRUSHED ASPHALT BASE COURSE SHALL CONSIST OF 4" SUBBASE, GRADING C, PORTLAND CEMENT, AND EMULSIFIED ASPHALT PER SECTION 308. SEE SECTION 304 FOR INCORPORATION OF RAM INTO SUBBASE.

0 3 6
SCALE IN FEET

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEWARD Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK
A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL
STATE OF ALASKA 1.19.120 Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER
PATH: O:\Ktn\71670\Planset\B_Typ.dwg
TAB: B1 Thu, 20/Apr/06 01:52PM lrobertson

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	B1	179

"O" LINE TYPICAL SECTION NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE DETERMINED FROM THE EDGE OF MAINTAINED DITCH/FORESLOPE, TO THE LIMITS BELOW OR AS DIRECTED.

CLEARING LIMITS SHALL BE:

A. CLEARING LIMITS SHALL BE AS SHOWN OR TO THE RIGHT-OF-WAY LINE, WHICHEVER IS CLOSER TO CENTERLINE.

B. CLEARING LIMITS FROM "O" 220+00 TO 232+00 LT SHALL BE TO THE RIGHT-OF-WAY LINE.

GRUBBING LIMITS SHALL BE:

A. ALL AREAS OF CUT.
B. TO THE SELECT MATERIAL, TYPE B OR D CATCH POINT IN THE EMBANKMENT AREAS.

2. EXTEND DITCH FORESLOPE FOR SPECIAL DITCHES, PROFILE SHALL GOVERN OVER TYPICAL SECTION.

3. THE THICKNESS OF EXISTING PAVEMENT VARIES, AVERAGE IS APPROXIMATELY 6"-8".

4. SEE TYPICAL SECTIONS ON SHEET B1 FOR ROADWAY STRUCTURAL SECTION.

5. BENCH SELECTED MATERIAL TYPE A AS SHOWN WHERE EXISTING ROAD BED IS ENCOUNTERED. MINIMUM NEW PAVEMENT SECTION CONSISTS OF 2" ASPHALT CONCRETE, 2" ATB, 4" CRUSHED ASPHALT BASE COURSE.

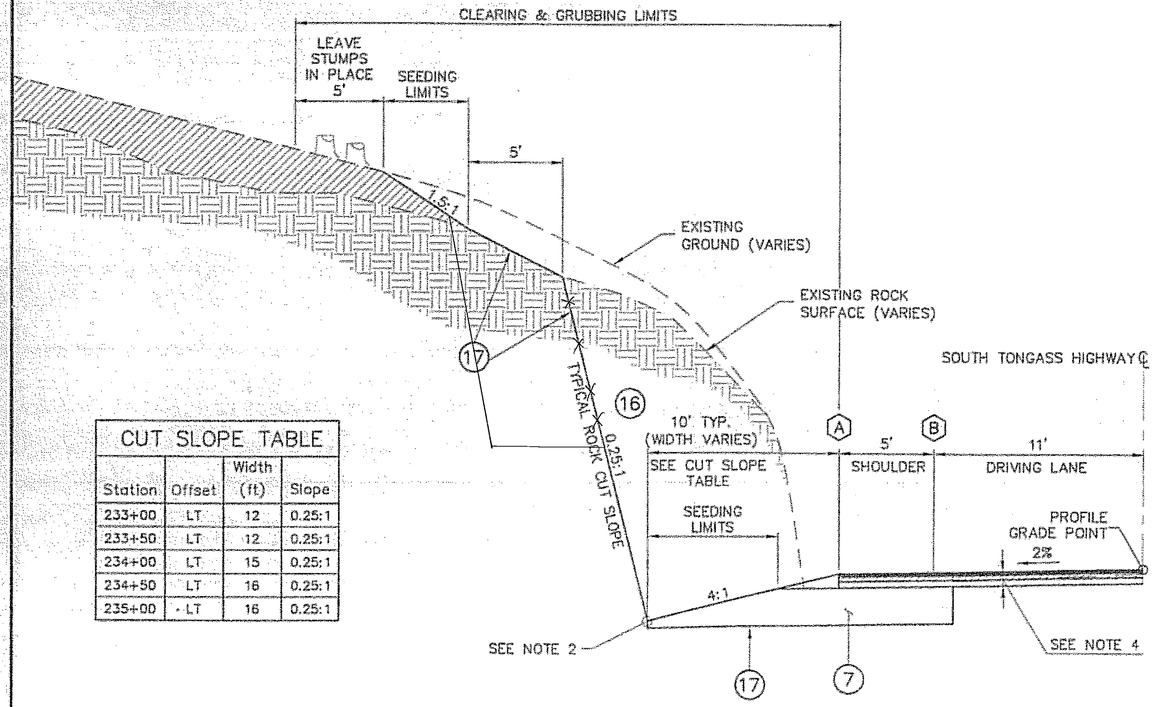
6. THE 5'-0" PATH SEPARATION SHALL BE FLATTENED AT DRIVEWAYS AND WHEN APPROACHING AND RECEDING FROM DRIVEWAYS AND INTERSECTIONS. A SHALLOW SWALE SHALL BE CONSTRUCTED AND GRADED TO CONVEY WATER AWAY FROM THE ROAD SURFACE.

7. THE MAXIMUM PROFILE GRADE OF THE ADJACENT PAVED PATHWAY SHALL BE 5 %.

8. FILL SLOPE RATIOS DEPICTED ON ALL "B" SHEETS ARE THE MAXIMUM. SLOPES MAY BE CONSTRUCTED FLATTER IF APPROVED. DITCHES ADJACENT TO ROCK CUTS SHALL BE CONSTRUCTED AS SHOWN ON THE TYPICAL SECTIONS, NO FLATTENING OF FORESLOPES WILL BE ALLOWED.

9. SEE SLOPE TABLES FOR MODIFICATIONS OF TYPICAL CUT AND FILL SLOPES.

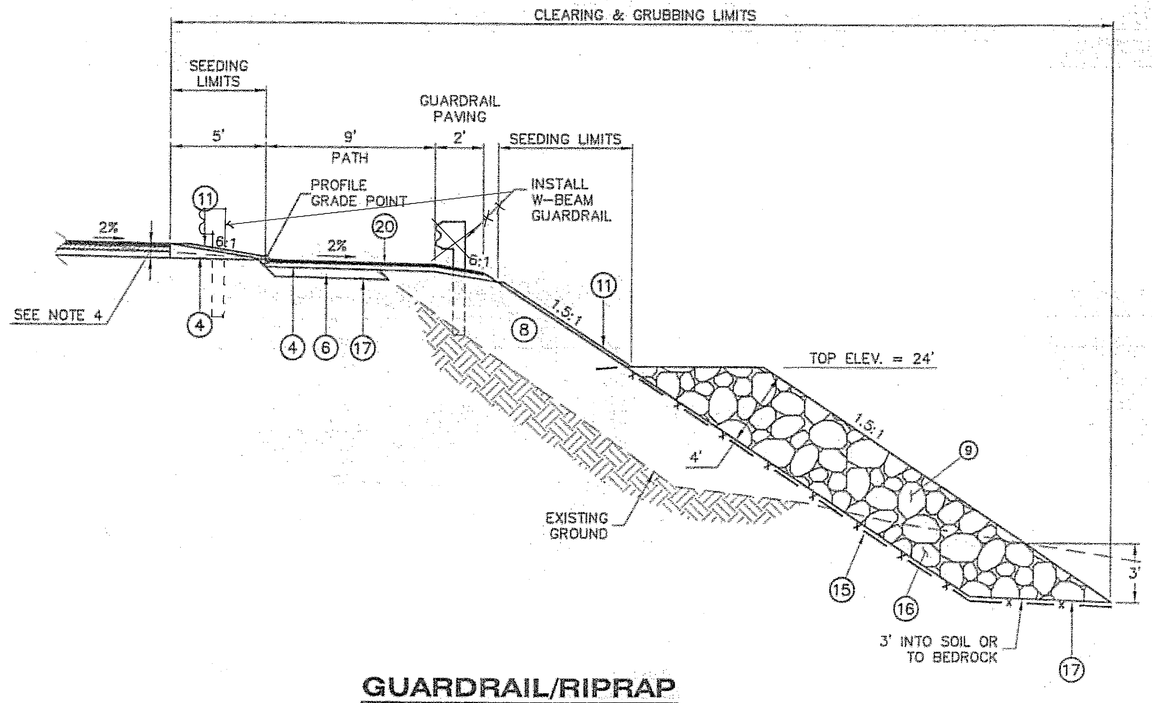
10. SEE K SHEETS FOR RETAINING WALL PLANS AND FENCING DETAILS NOT SHOWN HERE.



CUT SLOPE TABLE			
Station	Offset	Width (ft)	Slope
233+00	LT	12	0.25:1
233+50	LT	12	0.25:1
234+00	LT	15	0.25:1
234+50	LT	16	0.25:1
235+00	LT	16	0.25:1

TYPICAL ROCK CUT SECTION

0 4 8
SCALE IN FEET



GUARDRAIL/RIPRAP TYPICAL SECTION RT

"O" Sta. 231+00 TO 234+50

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AR Sheward Date 9-03

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK

A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

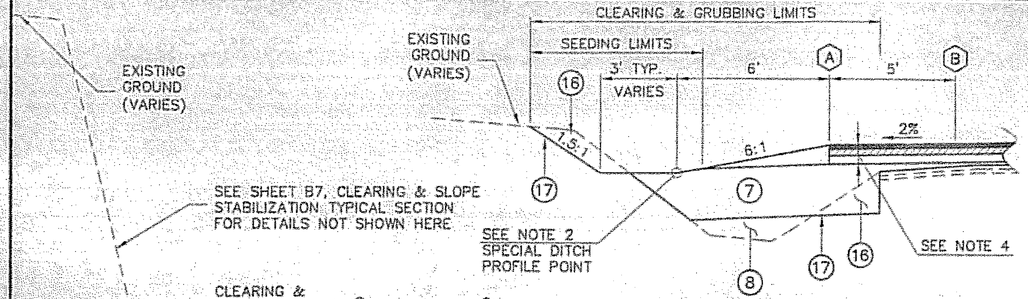
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_664\B_Typ.dwg
TAB: B2 Thu, 20/Apr/06 01:53PM lrobertson

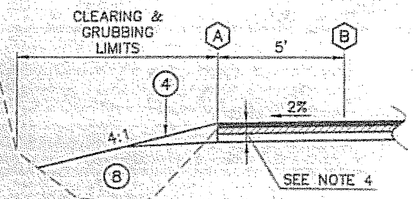
REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B2	179



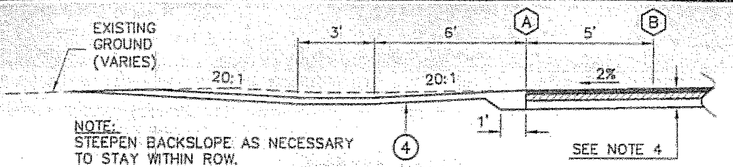
SECTION LT

"O" Sta. 161+00 TO 163+00
"O" Sta. 171+50 TO 172+00
"O" Sta. 191+05 TO 191+45



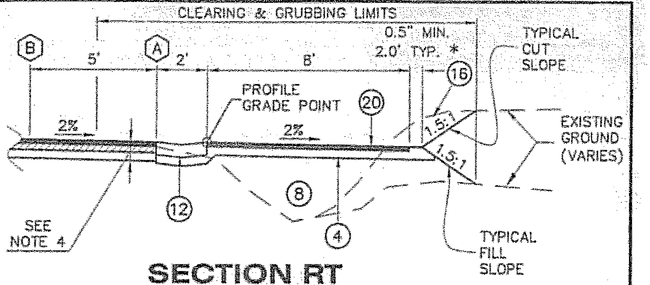
SECTION LT

"O" STA. 180+00 TO 182+50
"O" STA. 187+75 TO 189+50
"O" STA. 246+50 TO 250+50



SECTION LT

"O" STA. 189+90 TO 190+20

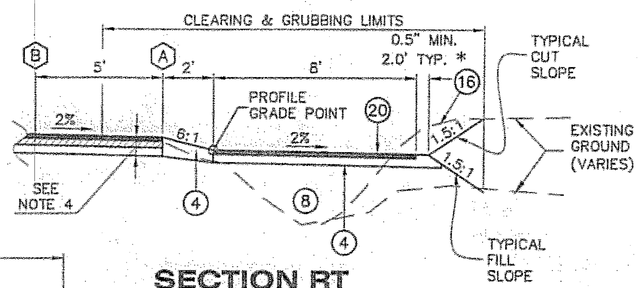


SECTION RT

"O" Sta. 182+33 TO 192+50

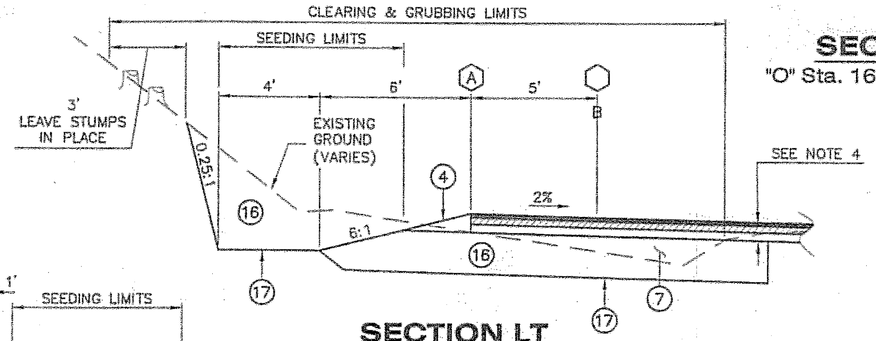
*CONSTRUCT PATH SHOULDER TO A MINIMUM OF 0.5' AS REQUIRED TO KEEP TOE OF SLOPE WITHIN ROW.

**DISTANCE VARIES, SEE PATH STA/OFFSETS SHOWN IN THE PLANS.



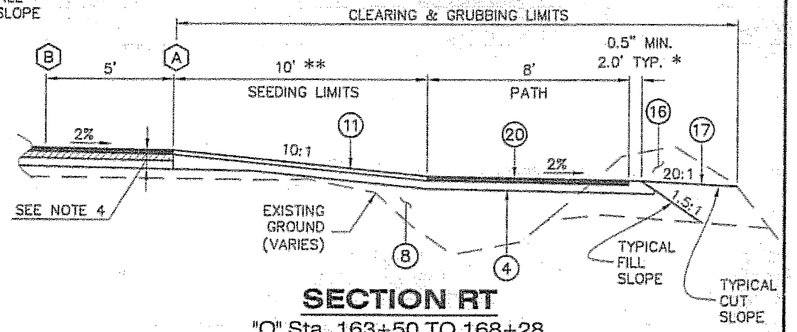
SECTION RT

"O" Sta. 161+00 TO 162+50



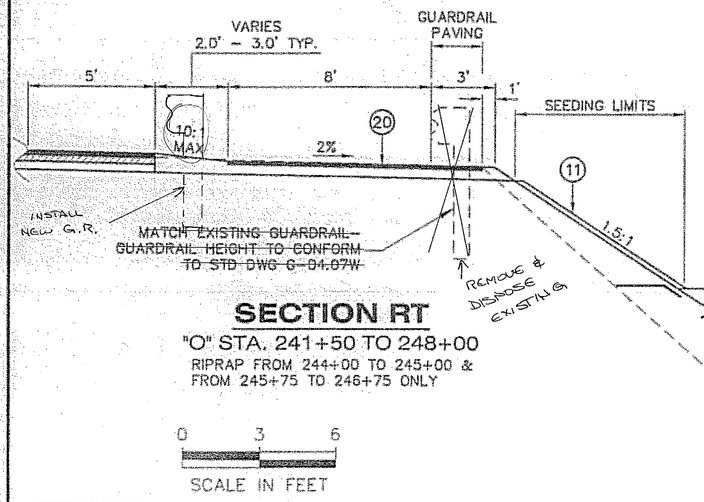
SECTION LT

"O" STA. 229+00 TO 231+50



SECTION RT

"O" Sta. 163+50 TO 168+28

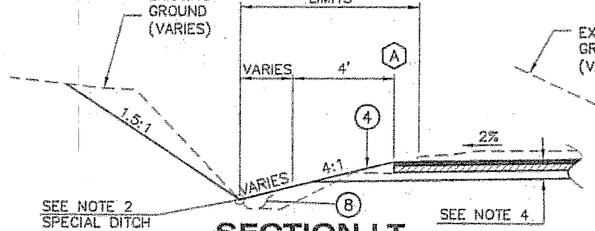


SECTION RT

"O" STA. 241+50 TO 248+00
RIPRAP FROM 244+00 TO 245+00 & FROM 245+75 TO 246+75 ONLY

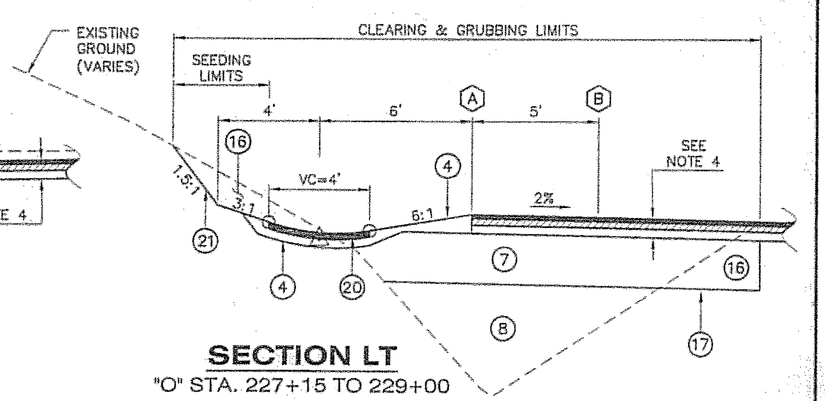
0 3 6
SCALE IN FEET

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.
ALL OTHER RIGHT SECTIONS ON SHEET B4.



SECTION LT

"O" STA. 186+50 TO 187+25



SECTION LT

"O" STA. 227+15 TO 229+00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK
A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng [signature] Date 9-03

CHECKED BY: P.CARROLL
STATE OF ALASKA – 49th – Chad J. Howard CE-10835 – REGISTERED PROFESSIONAL ENGINEER – 4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

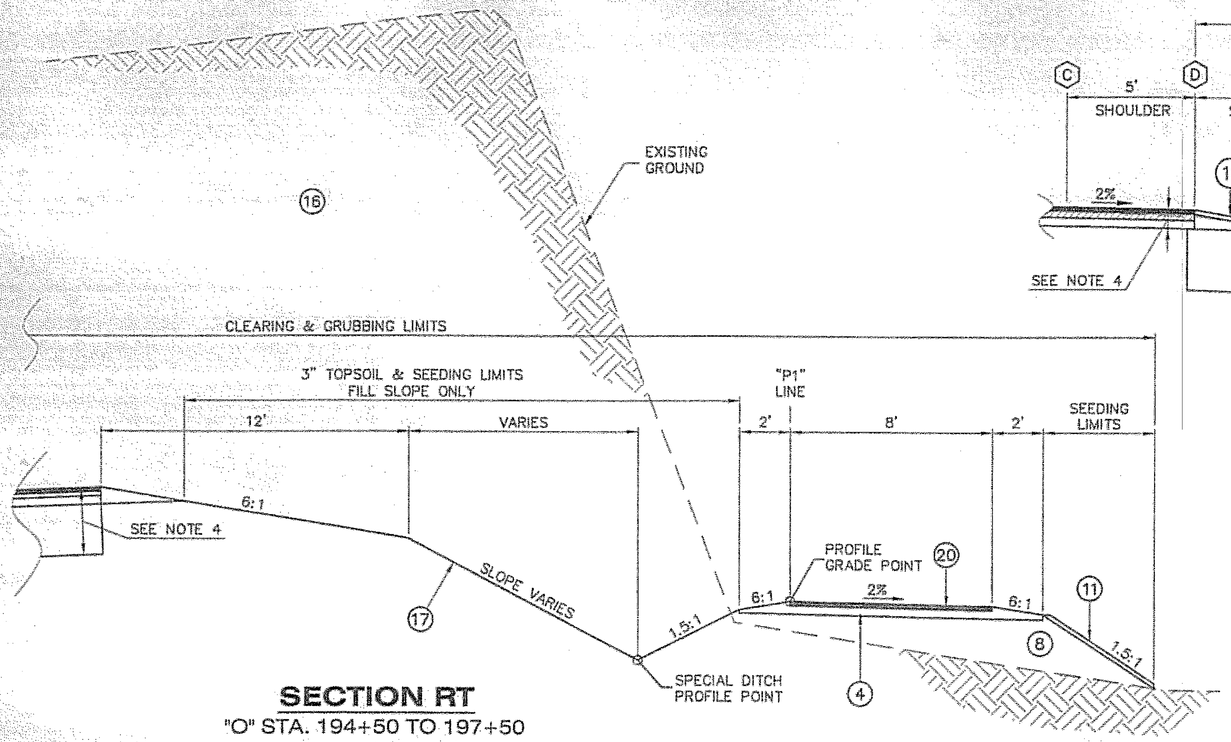
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

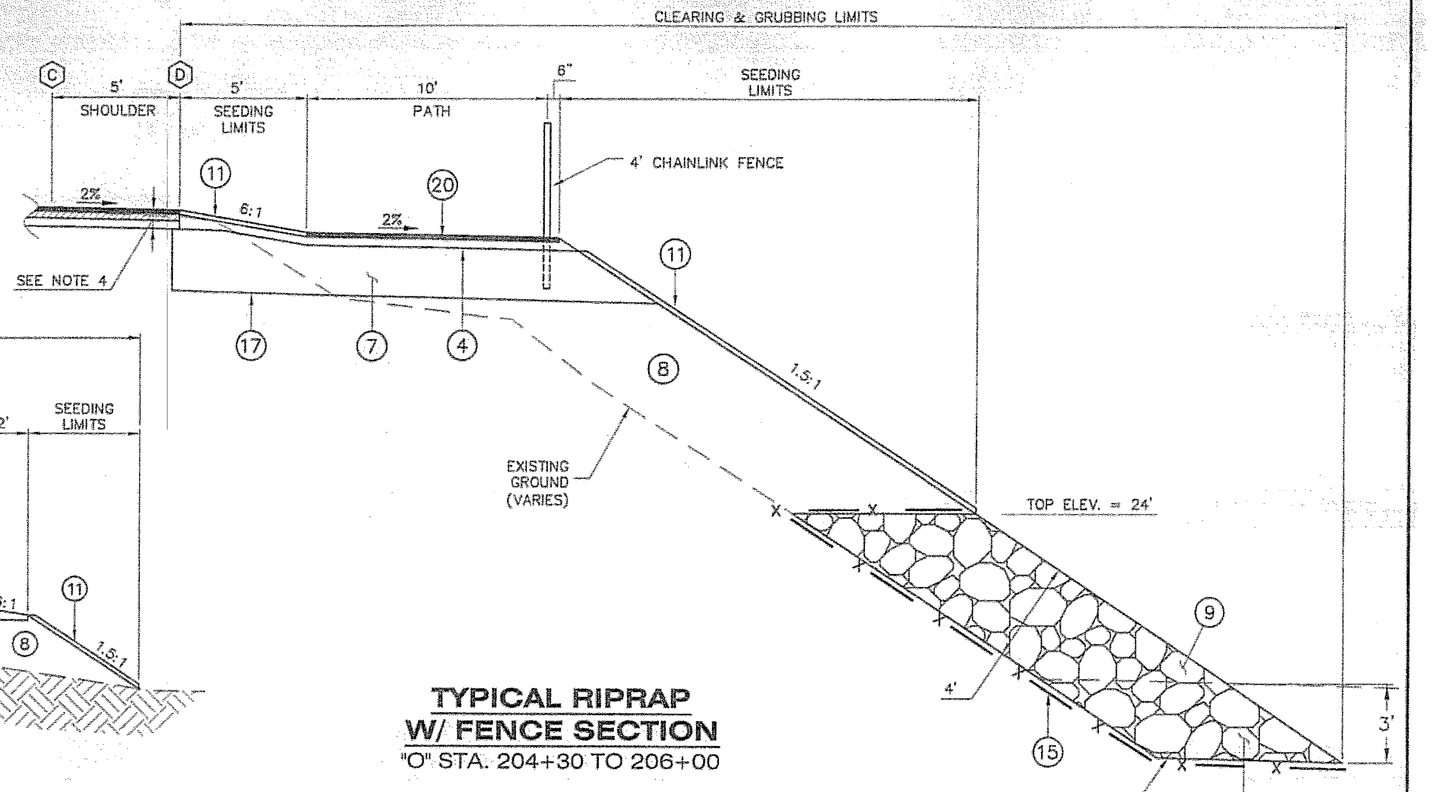
PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_664\B_Typ.dwg
TAB: B3 Thu, 20/Apr/06 01:53PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	B3	179



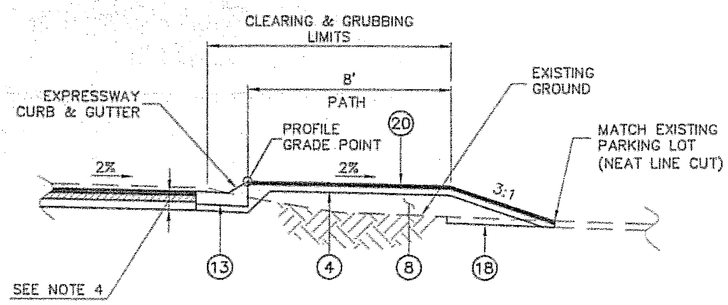
SECTION RT

"O" STA. 194+50 TO 197+50



TYPICAL RIPRAP W/ FENCE SECTION

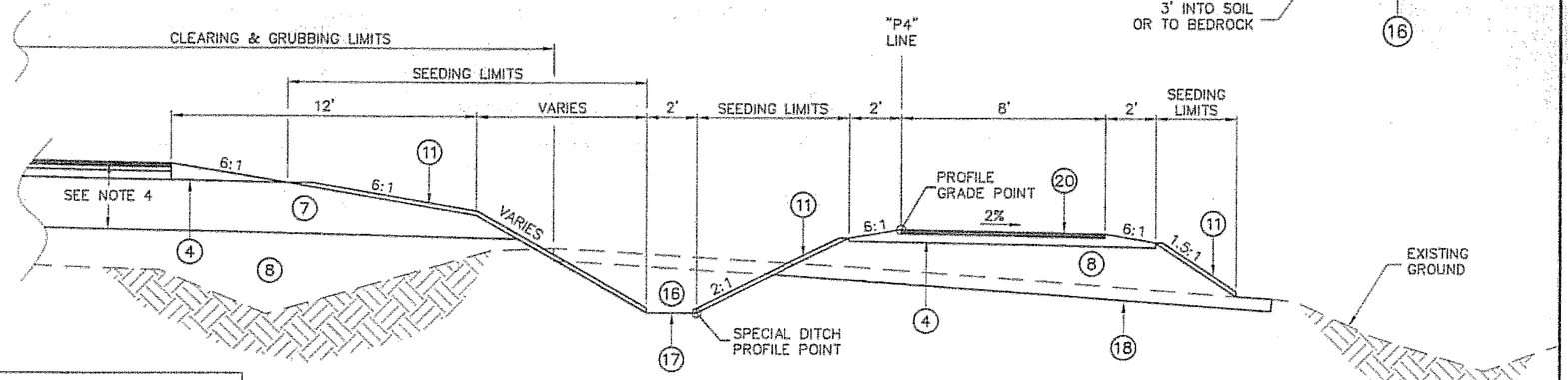
"O" STA. 204+30 TO 206+00



SECTION RT

"O" STA. 174+20 TO 175+80

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.



SECTION RT

"O" STA. 218+50 TO 219+00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK
- (A) ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AS SHOWN Date 3-09

CHECKED BY: P.CARROLL

STATE OF ALASKA · 49th · Child J. Howard · CE-10835 · REGISTERED PROFESSIONAL ENGINEER · 4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_664\B_Typ.dwg

TAB: B4 Thu, 20/Apr/06 01:53PM lrobertson

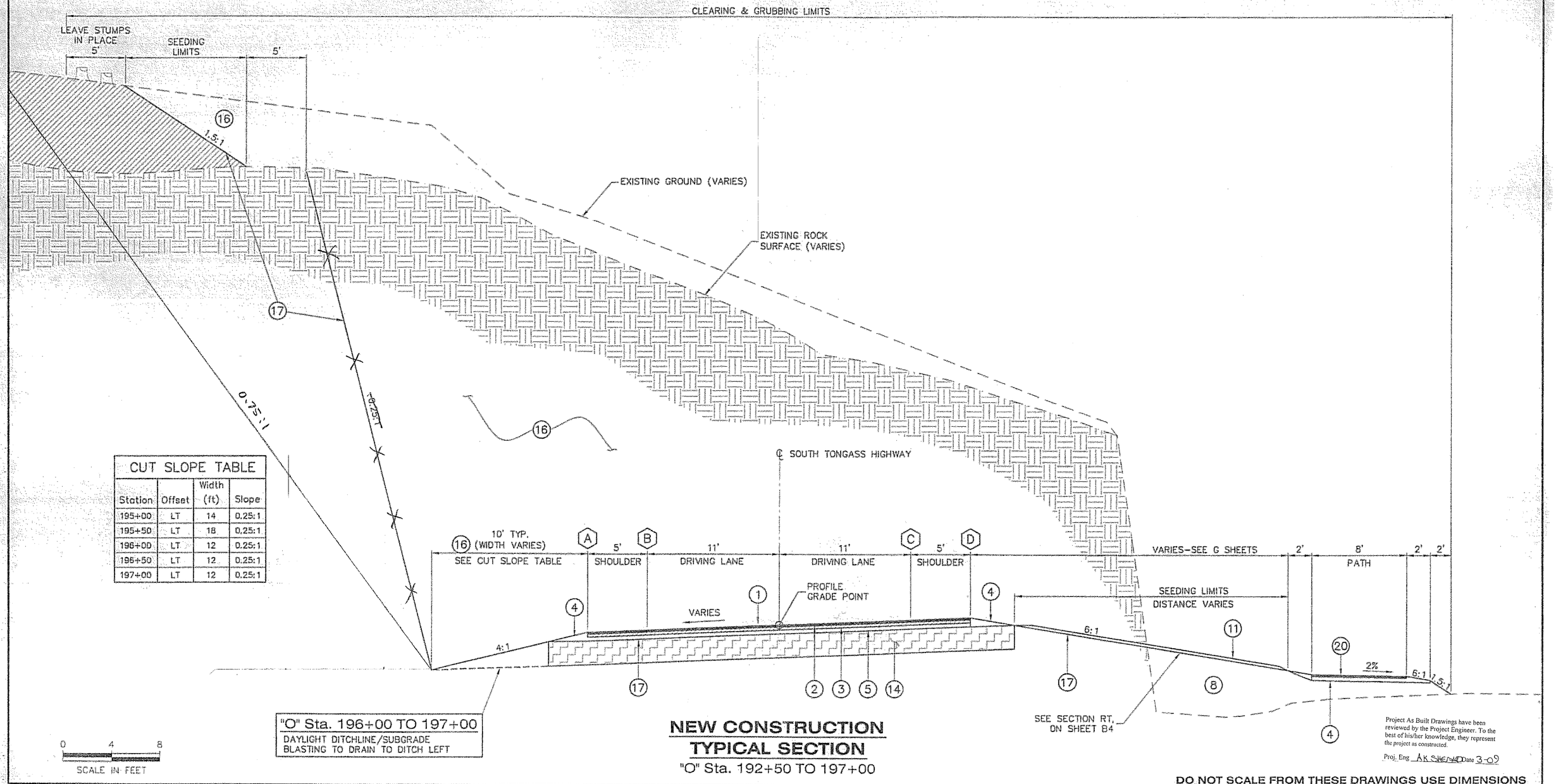
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B4	179



CUT SLOPE TABLE			
Station	Offset	Width (ft)	Slope
195+00	LT	14	0.25:1
195+50	LT	18	0.25:1
196+00	LT	12	0.25:1
196+50	LT	12	0.25:1
197+00	LT	12	0.25:1

"O" Sta. 196+00 TO 197+00
DAYLIGHT DITCHLINE/SUBGRADE BLASTING TO DRAIN TO DITCH LEFT

NEW CONSTRUCTION TYPICAL SECTION

"O" Sta. 192+50 TO 197+00

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SIGNED Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK

A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA 49th Clifford J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_664\B_Typ.dwg
TAB: B5 Thu, 20/Apr/06 01:53PM lrobertson

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

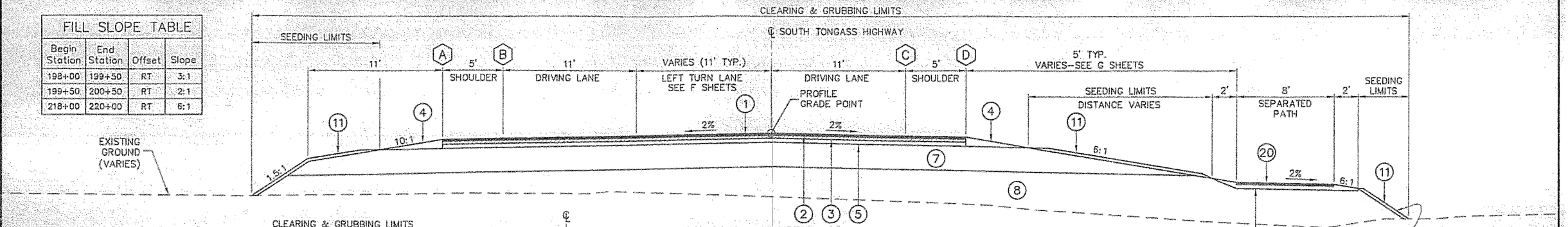
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

REVISIONS NO.	DATE	DESCRIPTION

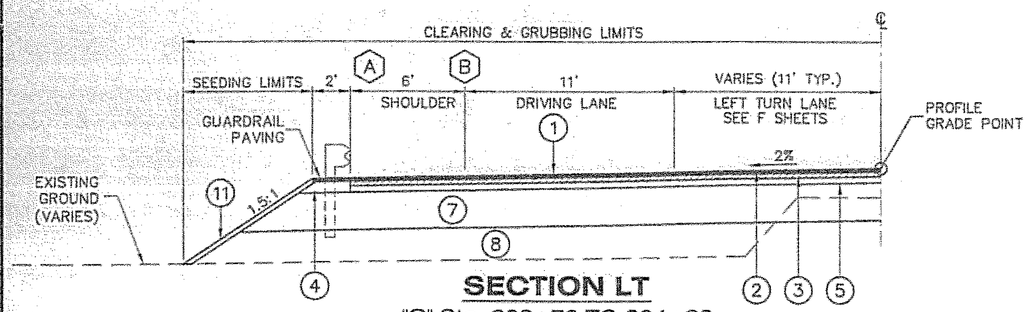
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B5	179

FILL SLOPE TABLE			
Begin Station	End Station	Offset	Slope
198+00	199+50	RT	3:1
199+50	200+50	RT	2:1
218+00	220+00	RT	6:1



NEW CONSTRUCTION
TYPICAL SECTION
"O" Sta. 197+00 TO 208+00
"O" Sta. 214+00 TO 220+50

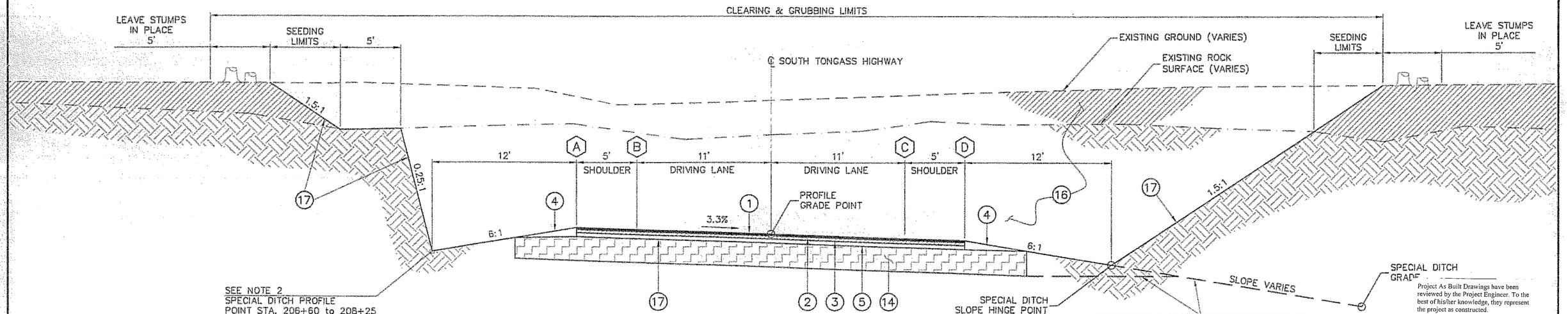
"O" Sta. 214+00 TO 217+00
CONSTRUCT RIGHT SIDE TO DIMENSIONS AND SLOPES AS SHOWN ON LEFT SIDE ON THIS TYPICAL SECTION



SECTION LT
"O" Sta. 203+70 TO 204+82

0 4 8
SCALE IN FEET

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.



DITCHLINE SUBGRADE BLASTING
TYPICAL SECTION
"O" Sta. 208+00 TO 214+00

"O" Sta. 209+00 TO 210+00
DAYLIGHT CUT AND DITCHLINE/SUBGRADE BLASTING TO DRAIN TO SPECIAL DITCH

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. K. Shepard Date 3-09

NOTE:
SEE "P1" LINE SEPARATED PATH TYPICAL SECTION ON SHEET B8.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK

A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL
STATE OF ALASKA – 49th – Chad A. Howard CE-10835 – REGISTERED PROFESSIONAL ENGINEER
4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

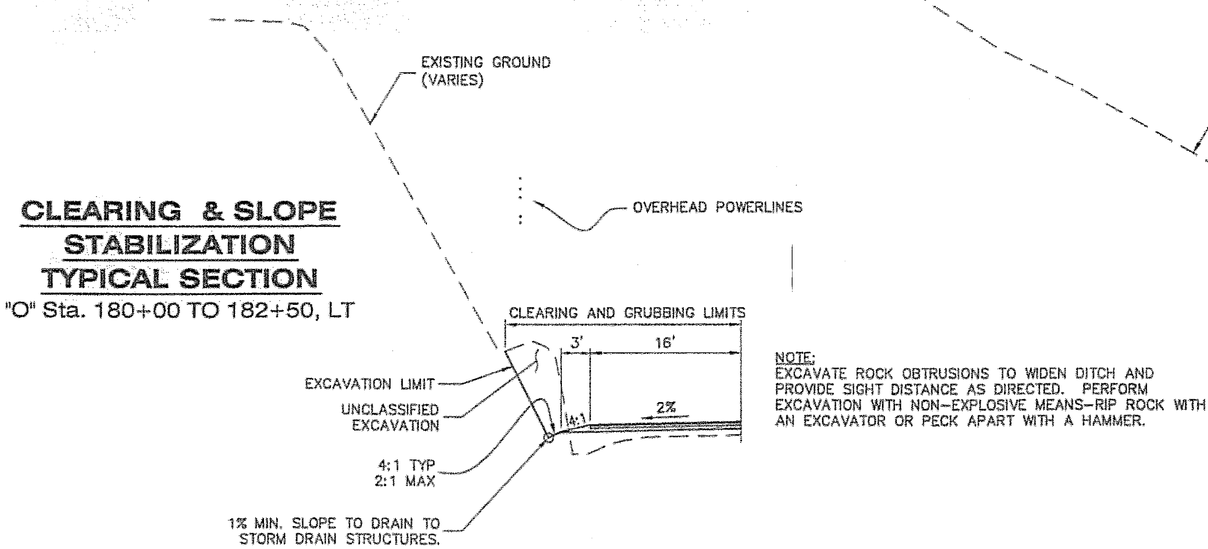
PATH: C:\Documents and Settings\lrobertson\Local Settings\Temp\AcPublish_664\B_Typ.dwg
TAB: B6 Thu, 20/Apr/06 01:53PM lrobertson

REVISIONS		
NO.	DATE	DESCRIPTION

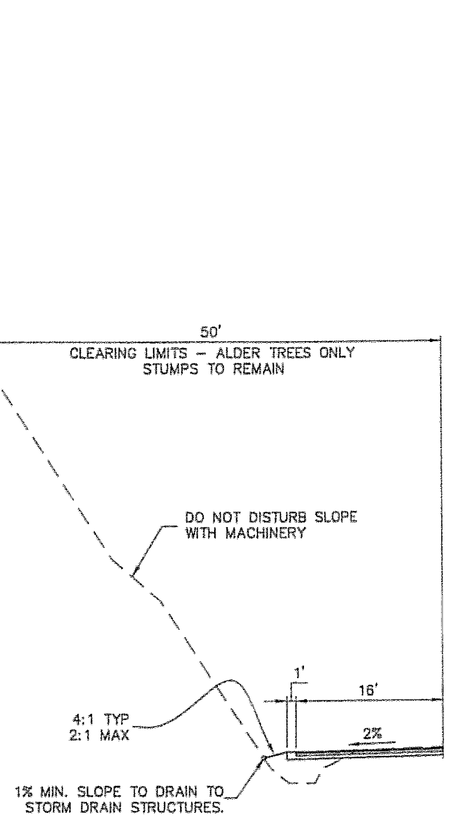
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B6	179

CLEARING & SLOPE STABILIZATION TYPICAL SECTION

"O" Sta. 180+00 TO 182+50, LT



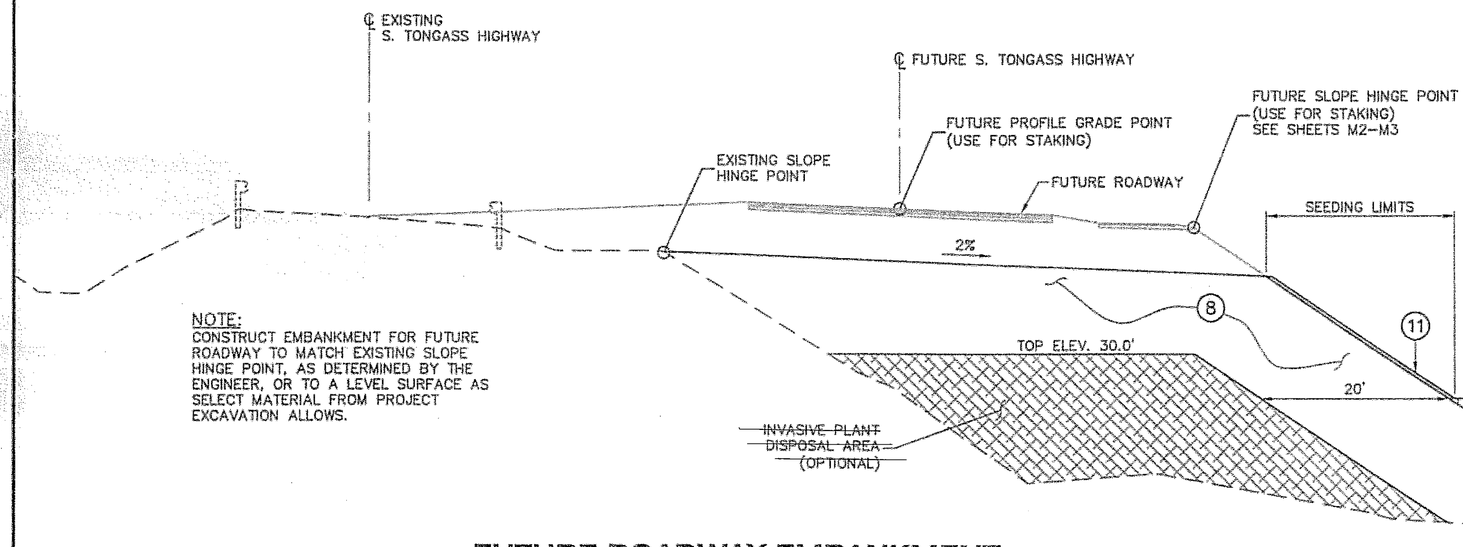
NOTE:
EXCAVATE ROCK OBTRUSIONS TO WIDEN DITCH AND PROVIDE SIGHT DISTANCE AS DIRECTED. PERFORM EXCAVATION WITH NON-EXPLOSIVE MEANS-RIP ROCK WITH AN EXCAVATOR OR PECK APART WITH A HAMMER.



FUTURE ROADWAY EMBANKMENT TYPICAL SECTION

"O" Sta. 266+50 TO 269+50

"O" Sta. 273+50 TO 279+00



NOTE:
CONSTRUCT EMBANKMENT FOR FUTURE ROADWAY TO MATCH EXISTING SLOPE HINGE POINT, AS DETERMINED BY THE ENGINEER, OR TO A LEVEL SURFACE AS SELECT MATERIAL FROM PROJECT EXCAVATION ALLOWS.

CLEARING & SLOPE STABILIZATION TYPICAL SECTION

"O" Sta. 246+50 TO 250+50, LT

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.

0 8 16
SCALE IN FEET

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK

A ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK Sheard Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA 18th REGISTERED Chad J. Howard CE-10835 PROFESSIONAL ENGINEER 5-5-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

PATH: Q:\Kth\71670\Planset\B_Typ.dwg
TAB: B7 Fri, 05/May/06 10:17AM rksnyder

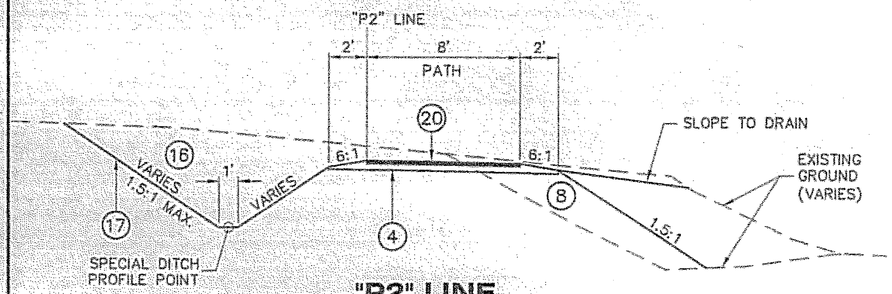
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

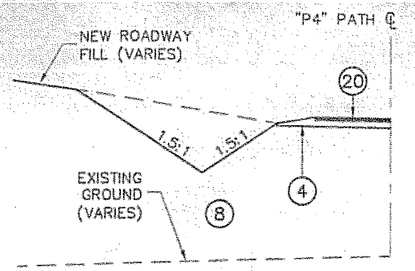
REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	B7	179

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.
FOR "P1" LINE TYPICAL SECTION DETAILS,
SEE SECTION RT, SHEET B4.



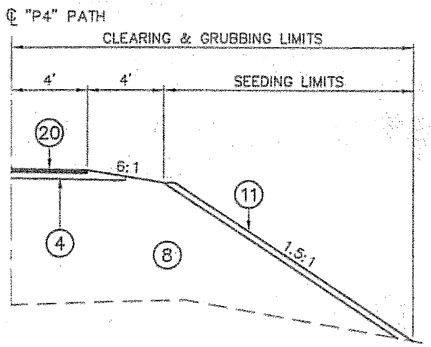
"P2" LINE SEPARATED PATH TYPICAL SECTION

"P2" Sta.1+00 TO 3+46.88



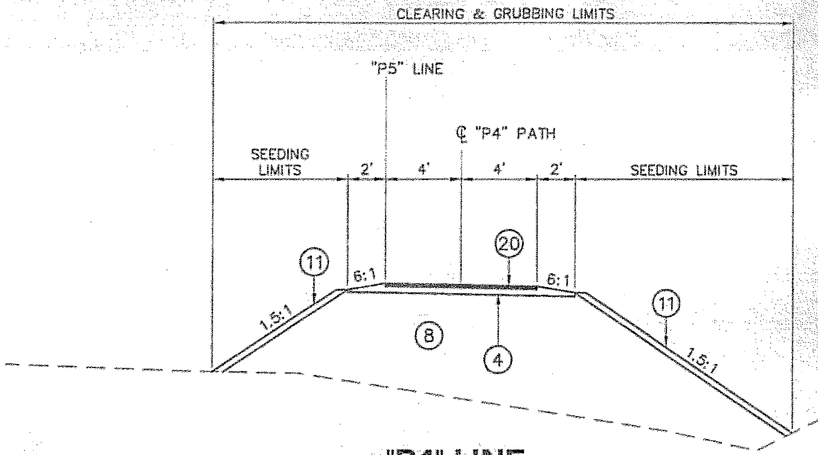
"P4" SECTION LT

"P4" 3+50-4+10



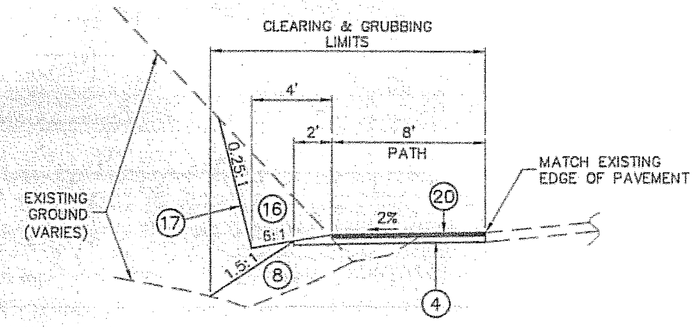
"P4" SECTION RT & LT

"P4" 2+80 - 4+00 RT
"P4" 2+80 - 3+40 LT



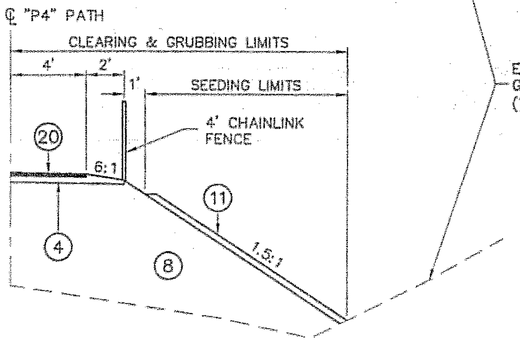
"P4" LINE SEPARATED PATH TYPICAL SECTION

"P4" Sta.1+00 TO 4+10



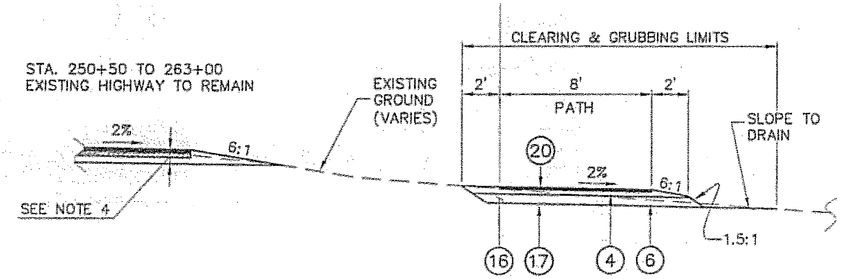
"P3" LINE ATTACHED PATH TYPICAL SECTION

"O" Sta. 212+00 TO 215+00, RT.
(PATH BETWEEN N. LOOP & S. LOOP ROADS)



"P4" SECTION RT & LT

"P4" 2+20 - 2+70 RT
"P4" 2+40 - 2+70 LT



"P5" LINE SEPARATED PATH TYPICAL SECTION

"O" Sta. 248+50 TO 263+00

0 4 8
SCALE IN FEET

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. [signature] Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
3. 2" ASPHALT TREATED BASE
4. 4" SUBBASE, GRADING C
5. 4" CRUSHED ASPHALT BASE COURSE
6. 6" SELECT MATERIAL, TYPE A
7. 24" SELECT MATERIAL, TYPE A
8. SELECT MATERIAL, TYPE B OR D
9. RIPRAP, CLASS III
10. ROCKERY/CONCRETE RETAINING WALL
11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK
A. ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL
STATE OF ALASKA — Chad J. Howard — CE-10835 — REGISTERED PROFESSIONAL ENGINEER — 4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

TYPICAL SECTIONS

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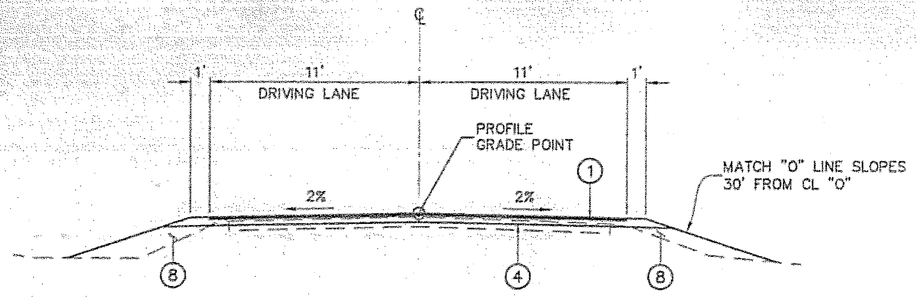
TAB: B8 Thu, 20/Apr/06 01:53PM lrobertson

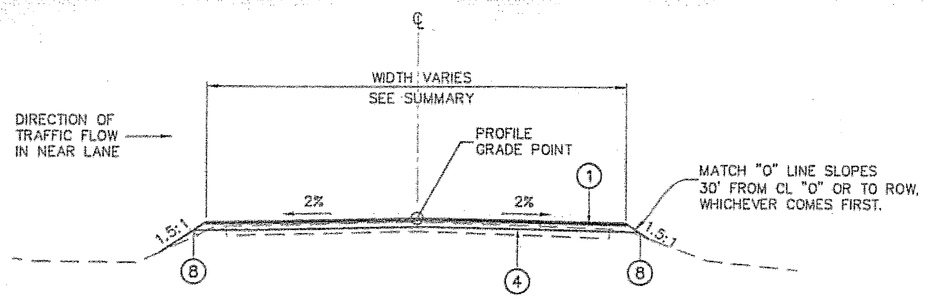
REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B8	179



SIDESTREET
TYPICAL SECTION

B.O.P. TO E.O.P.
SEE D SHEETS FOR LOCATIONS



DRIVEWAY
TYPICAL SECTION

B.O.P. TO E.O.P.
SEE D SHEETS FOR LOCATIONS

0 4 8
SCALE IN FEET

NOTE:
SEE TYPICAL SECTION NOTES ON SHEET B2.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr AKSNYDER Date 3-00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

LEGEND

1. 2" ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B
2. STE-1 TACK COAT
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11. 3" TOPSOIL
12. CURB & GUTTER, TYPE 1
13. GUTTER
14. 24" DITCHLINE/SUBGRADE BLASTING
15. GEOTEXTILE FABRIC
16. UNCLASSIFIED EXCAVATION
17. LIMITS OF EXCAVATION
18. LIMITS OF EXCAVATION, BOTTOM OF EXISTING PAVEMENT
19. ADDITIONAL SUB-EXCAVATION AS DIRECTED BY THE ENGINEER
20. 2" ASPHALT SIDEWALK

(A) ALIGNMENT POINT FOR PARTIAL CROSS SECTIONS

CHECKED BY: P.CARROLL
STATE OF ALASKA 10th Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER
4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

TYPICAL SECTIONS

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REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	B9	179

ESTIMATE OF QUANTITIES

ITEM NO	PAY ITEM	PAY UNIT	QUANTITY 69082	QUANTITY 71670	QUANTITY 68581	COMBINED	
201(3B)	CLEARING & GRUBBING	LUMP SUM		ALL REQUIRED		ALL REQUIRED	200,000.00
201(6)	SELECTIVE TREE REMOVAL	EACH		47 ~~16~~		47 ~~16~~	94,000.00
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM		ALL REQUIRED		ALL REQUIRED	10,000.00
202 (4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT		2750.7 ~~2290~~		2750.7 2,290	55,014.00
202(10)	SINGLE MAIL BOX INSTALLATION	EACH		36 ~~21~~		36 21	9000.00
202(11)	MULTIPLE MAIL BOX INSTALLATION	EACH		9 ~~8~~		9 ~~8~~	4500.00
203 (3)	UNCLASSIFIED EXCAVATION	CUBIC YARD		74,246 ~~54585~~		74,246 ~~54,585~~	1,187,933.00
203(10)	CONTROLLED BLASTING	LINEAR FOOT		12725 ~~20458~~		12,725 ~~20,458~~	89,074.00
203(11)	DITCHLINE/SUBGRADE BLASTING	SQUARE YARD		3449 ~~3300~~		3449 ~~3,300~~	51,735.00
203(12)	DRAIN HOLES	LINEAR FOOT		470 ~~1000~~		470 ~~1,000~~	4700.00
203(13)	STABILIZATION - ROCK BOLT	EACH		43 ~~25~~		43 ~~25~~	86,000.00
203(19)	CONTROL OF INVASIVE PLANTS	LUMP SUM		ALL REQUIRED		ALL REQUIRED	50,000.00
203 (20)	TRENCH BLASTING	LINEAR FOOT		0 ~~400~~	484 ~~1000~~	484 ~~1,400~~	24,175.00
304 (1)	SUBBASE, GRADING C	TON		10,989 ~~8000~~		10,989 ~~8,000~~	329,670.00
306 (1)	ATB	TON		5487 ~~3800~~		5487 ~~3,800~~	356,679.00
308 (4)	TRENCH PAVEMENT PATCH	EACH		91 ~~95~~		91 ~~95~~	91,000.00
308 (1)	CRUSHED ASPHALT BASE COURSE	SQUARE YARD		33236 ~~32000~~		33236 ~~32,000~~	166,179.00
308 (2)	CSS-1 ASPHALT FOR BASE COURSE	TON		187 ~~133~~		187 ~~133~~	130,921.00
308 (3)	PORTLAND CEMENT	TON		58 ~~52~~		58 ~~52~~	11,684.00
308 (4)	AGGREGATE FOR CABC	TON		602 ~~3500~~		602 ~~3,500~~	18,046.00
401 (1)	ASPHALT CONCRETE, TYPE II; CLASS B	TON		4477 ~~5500~~		4477 ~~5,500~~	313,407.00
401 (2)	ASPHALT CEMENT, GRADE PG 58-28	TON		503 ~~480~~		503 ~~480~~	301,782.00
401 (6)	ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM		ALL REQUIRED		ALL REQUIRED	17,329.00
402 (1)	STE-1 ASPHALT FOR TACK COAT	TON		12 ~~15~~		12 ~~15~~	11,630.00
501 (8)	CONCRETE PRICE ADJUSTMENT	CONTINGENT SUM		ALL REQUIRED		ALL REQUIRED	NOT USED
501 (9)	CLASS A CONCRETE RETAINING WALL	SQUARE FOOT		700 ~~650~~		700 ~~650~~	87,556.00
501 (10)	CONCRETE BOX CULVERT EXTENSION	LUMP SUM		ALL REQUIRED		ALL REQUIRED	400,000.00
511 (1)	MECHANICALLY STABILIZED EARTH WALL	SQUARE FOOT		4565 ~~4993~~		4565 ~~4,993~~	159,775.00
514 (1)	ROCKERY WALL	SQUARE FOOT		3730 ~~2091~~		3730 ~~2,091~~	111,900.00
515 (1)	CONCRETE STAIRWAY	LUMP SUM		ALL REQUIRED		ALL REQUIRED	25,000.00
602 (2)	STRUCTURAL PLATE PIPE-ARCH 11'-1" SPAN, 7'-0" RISE, 0.125 THICKNESS	LINEAR FOOT		68 ~~67.5~~		68	169,750.00
603 (9)-12	12 INCH CORRUGATED ALUMINUM PIPE	LINEAR FOOT		162 ~~88~~		162 ~~88~~	7290.00
603 (9)-18	18 INCH CORRUGATED ALUMINUM PIPE	LINEAR FOOT		213 ~~103~~		213 ~~103~~	21,320.00
603 (21)-18	18 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT		1959 ~~1719~~		1959 ~~1,719~~	195,880.00
603 (21)-24	24 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT		1581 ~~1272~~		1581 ~~1,272~~	189,720.00
603 (21)-36	36 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT		566 ~~255~~		566 ~~255~~	84,960.00
603 (22)-18	END SECTION FOR 18 INCH CORRUGATED POLYETHYLENE PIPE	EACH		1		1	200.00
603 (22)-24	END SECTION FOR 24 INCH CORRUGATED POLYETHYLENE PIPE	EACH		3		3	750.00
604 (1A)	STORM SEWER MANHOLE, TYPE I	EACH		7		7	28,000.00
604 (1B)	STORM SEWER MANHOLE, TYPE 2	EACH		3		3	15,000.00
604 (5A)	INLET, TYPE A	EACH		18 ~~16~~		18 ~~16~~	36,000.00
604 (5C)	INLET, TYPE C	EACH		6 ~~5~~		6 ~~5~~	24,000.00
606 (1)	W-BEAM GUARDRAIL	LINEAR FOOT		1106 ~~559~~		1106 ~~559~~	38,721.00
606 (6)	REMOVING AND DISPOSING OF GUARDRAIL	LINEAR FOOT		3275 ~~2543~~		3275 ~~2,543~~	32,754.00
606 (9)	CONTROLLED RELEASE TERMINAL (CRT)	EACH		1		1	5000.00
606(11)	EXTRUDER TERMINAL (ET-2000)	EACH		3		3	13,000.00
606(13)	DOWNSTREAM END ANCHOR	EACH		4 ~~3~~		4 ~~3~~	12,000.00
607 (3)	CHAIN LINK FENCE	LINEAR FOOT		1343 ~~1359~~		1343 ~~1,359~~	40,296.00
608 (3)	ASPHALT SIDEWALK	SQUARE YARD		9352 ~~8790~~		9352 ~~9,790~~	93,519.00
609 (2)	CURB AND GUTTER, TYPE 1	LINEAR FOOT		1219 ~~865~~		1219 ~~865~~	42,672.00
609 (7)	GUTTER	LINEAR FOOT		993 ~~1092~~		993 ~~1,092~~	34,748.00
611 (1)	RIPRAP, CLASS III	CUBIC YARD		3612 ~~5800~~		3612 ~~5,800~~	90,299.00
611 (3)	SLOPE STABILIZATION	SQUARE YARD		117 ~~150~~		117 ~~150~~	2346.00
615 (1)	STANDARD SIGN	SQUARE FOOT		203 ~~100~~		203 ~~100~~	13,169.00
615 (5)	DELINEATOR, FLEXIBLE	EACH		49 ~~40~~		49 ~~45~~	7350.00
618 (1)	SEEDING	ACRE		3.6 ~~10~~		3.6 ~~10~~	8900.00
620 (1)	TOPSOIL	SQUARE YARD		9174 ~~3590~~		9174 ~~3,596~~	64,221.00
625 (1)	PIPE HAND RAIL	LINEAR FOOT		276 ~~270~~		276 ~~270~~	69,075.00
626 (1A)	SANITARY SEWER SERVICE CROSSING, 4 INCH, GRAVITY	LINEAR FOOT			2121 ~~2328~~	2121 ~~2,328~~	106,025.00
626 (1B)	SANITARY SEWER SERVICE CROSSING, 1-1/4 INCH, PRESSURE	LINEAR FOOT			226 ~~110~~	226 ~~110~~	11,310.00
626 (1C)	SANITARY SEWER SERVICE CROSSING, 4 INCH, PRESSURE	LINEAR FOOT			169 ~~110~~	169 ~~110~~	8450.00
626 (2)	MANHOLE ADJUSTMENT	EACH	6			6	3000.00
626 (3)	RELOCATE COMBINATION AIR/VACUUM ASSEMBLY	EACH	0 ~~1~~			0 ~~1~~	NOT USED
626 (4)	SEWER VALVE BOX ADJUSTMENT	EACH	4 ~~2~~			4 ~~2~~	1000.00
626 (5)	SEWER CLEANOUT ADJUSTMENT	EACH	3 ~~2~~			3 ~~2~~	1500.00
626 (6)	CONNECTION TO EXISTING SEWER / DEMO EXISTING WASTEWATER TREATMENT PLANT	EACH		11 ~~8~~		11 ~~8~~	16,500.00

ESTIMATE OF QUANTITIES

ITEM NO	PAY ITEM	PAY UNIT	QUANTITY 69082	QUANTITY 71670	QUANTITY 68581	COMBINED	
626 (7)	CONNECT TO EXISTING GRAVITY SEWER MAIN	EACH			17 ~~8~~	17 ~~8~~	25,500.00
626 (8)	CONNECT TO EXISTING FORCE MAIN SEWER	EACH			6 ~~3~~	6 ~~3~~	9000.00
626 (9)	REMOVE EXISTING MANHOLE	EACH	1			1	500.00
626 (10)	RECONSTRUCT EXISTING MANHOLE	EACH	8			8	12,000.00
627 (1A)	WATER SERVICE CROSSING, 1 INCH, HDPE DELETED BY C.O.#1	LINEAR FOOT			0 ~~2690~~	0 ~~2,690~~	DELETED
627 (1B)	WATER SERVICE CROSSING, 2 INCH, HDPE	LINEAR FOOT			61 ~~80~~	61 ~~80~~	6140.00
627 (1C)	WATER SERVICE CROSSING, 6 INCH, HDPE	LINEAR FOOT			50 ~~30~~	50 ~~30~~	7530.00
627 (2)	WATER VALVE BOX ADJUSTMENT	EACH	18 ~~21~~			18 ~~21~~	2700.00
627 (3)	HYDRANT RELOCATION	EACH	12			12	30,000.00
627 (4)	AIR RELIEF STRUCTURE RELOCATION	EACH	3 ~~2~~			3 ~~2~~	4500.00
627 (5)	SERVICE VALVE BOX ADJUSTMENT	EACH	0 ~~21~~			0 ~~21~~	NOT USED
627 (6)	TEMPORARY WATER BYPASS	LUMP SUM	ALL REQUIRED			ALL REQUIRED	10,000.00
627 (7)	RIGID INSULATION	BOARD FOOT	3712 ~~8960~~			3712 ~~8,960~~	11,136.00
627 (8)	WATER LINE RELOCATION	LINEAR FOOT	112 ~~299~~			112 ~~299~~	11,200.00
627 (9)	WATER SERVICE CONNECTION TO EXISTING MAIN	EACH			28 ~~21~~	28 ~~21~~	28,000.00
627 (10)	INSTALL WATER METER ON EXISTING SERVICE	EACH			0 ~~2~~	0 ~~2~~	NOT USED
628 (1)	GUARDRAIL PAVING	LINEAR FOOT		1197 ~~1962~~		1197 ~~1,962~~	11,970.00
630 (2)	GEOTEXTILE, STABILIZATION DELETED BY C.O.#2	SQUARE YARD		0 ~~4,668~~		0 ~~4,668~~	DELETED
633 (1)	SILT FENCE	LINEAR FOOT		2324 ~~1936~~		2324 ~~1,936~~	11,621.00
635 (1)	INSULATION BOARD	MBM		7.7 ~~8.5~~		7.7 ~~8~~	7646.00
639 (1)	RESIDENCE DRIVEWAY	EACH		81 ~~78~~		81 ~~78~~	40,500.00
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED ~~10,285,000~~	ALL REQUIRED ~~536,233,000~~	ALL REQUIRED ~~49,076,000~~	ALL REQUIRED ~~6,500,000.00~~	650,000.00
640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED ~~1,455,000~~	ALL REQUIRED ~~84,370,000~~	ALL REQUIRED ~~5,561,000~~	ALL REQUIRED ~~90,000.00~~	90,000.00
641(1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED ~~81,000~~	ALL REQUIRED ~~4,838,000~~	ALL REQUIRED ~~323,000~~	ALL REQUIRED ~~5000.00~~	5000.00
641(2)	TEMPORARY EROSION AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED ~~1,215,000~~	ALL REQUIRED ~~72,570,000~~	ALL REQUIRED ~~4,844,000~~	ALL REQUIRED ~~63,071.00~~	63,071.00
641(5)	PRELIMINARY SEEDING	ACRE		3.4 ~~1.5~~		3.4 ~~2~~	8380.00
641(6)	TEMPORARY CHECK DAM	EACH		35 ~~25~~		35 ~~28~~	8750.00
641(7)	EROSION AND POLLUTION CONTROL PRICE ADJUSTMENT	CONTINGENT SUM		ALL REQUIRED ~~2,250,000~~		ALL REQUIRED ~~200,000.00~~	NOT USED
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED ~~1,125,000~~	ALL REQUIRED ~~67,500,000~~	ALL REQUIRED ~~4,254,000~~	ALL REQUIRED ~~72,879,000~~	200,000.00
642 (3)	THREE PERSON SURVEY PARTY	HOUR	0 ~~1.94~~	23.3 ~~89.35~~	0 ~~8.71~~	23.3 ~~100~~	4654.00
642 (4)	SET PRIMARY MONUMENT	EACH		15		15	3750.00
642(10)	MONUMENT CASE	EACH		15		15	7500.00
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED ~~4,986,000~~	ALL REQUIRED ~~277,350,000~~	ALL REQUIRED ~~19,500,000~~	ALL REQUIRED ~~300,000.00~~	300,000.00
643 (3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM		ALL REQUIRED ~~5,000,000~~		ALL REQUIRED ~~5000.00~~	5000.00
643(15)	FLAGGING	CONTINGENT SUM	AL 9033.00	407,151	A 47,082.00	ALL REQUIRED ~~463,286.00~~	463,286.00
643(23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM		ALL REQUIRED ~~12,500,000~~		ALL REQUIRED ~~125,199.00~~	NOT USED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	AL 14 05.00	£117,211.00	, 6583.00	ALL REQUIRED ~~1,000,000.00~~	125,199.00
643(30)	PUBLIC INFORMATION PROGRAM	LUMP SUM	ALL REQUIRED ~~1,500,000~~	ALL REQUIRED ~~91,670,000~~	ALL REQUIRED ~~6,663,000~~	ALL REQUIRED ~~10,000.00~~	10,000.00
644 (1)	FIELD OFFICE	LUMP SUM		ALL REQUIRED ~~2,000,000~~		ALL REQUIRED ~~29,000.00~~	29,000.00
644 (6)	VEHICLES	LUMP SUM		ALL REQUIRED ~~2,000,000~~		ALL REQUIRED ~~30,000.00~~	30,000.00
645 (1)	TRAINING PROGRAM, 1 TRAINEES/APPRENTICES	LABOR HOUR		500		500 ~~5000.00~~	5000.00
646 (1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED ~~185,000~~	ALL REQUIRED ~~10,000,000~~	ALL REQUIRED ~~685,000~~	ALL REQUIRED ~~10,000.00~~	10,000.00
651 (1)	EAGLE MONITORING	HOUR		70 ~~200~~		70 ~~200~~	10,538.00
660 (3)	HIGHWAY LIGHTING SYSTEM COMPLETE	LUMP SUM		ALL REQUIRED ~~1,300,000~~		ALL REQUIRED ~~130,000.00~~	130,000.00
661 (3)	LOAD CENTER, TYPE 2 DELETED BY C.O.#3	EACH		0 ~~6~~		0 ~~6~~	DELETED
662 (1)	POWER POLE LINE RECONSTRUCTION	LUMP SUM		ALL REQUIRED ~~600,000~~		ALL REQUIRED ~~600,000.00~~	600,000.00
669 (2)	AUTOMATED TRAFFIC RECORDER	LUMP SUM		ALL REQUIRED ~~31,000~~		ALL REQUIRED ~~31,000.00~~	31,000.00
670 (8)	RECESSED PAVEMENT MARKER	EACH		185 ~~211~~		185 ~~211~~	18,500.00
670(10)	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM		ALL REQUIRED ~~65,000~~		ALL REQUIRED ~~65,000.00~~	65,000.00
	SEE SHEET D-1 FOR CHANGE ORDER QUANTITIES AND AMOUNTS						9,072,984.87

BASIS OF ESTIMATE

ITEM NO	PAY ITEM	QUANTITY
201 (3B)	CLEARING & GRUBBING	6 Acres
306 (1)	ASPHALT TREATED BASE COURSE	117 LBS/SQ YD/INCH DEPTH
401 (1)	ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS B	120 LBS/SQ YD/INCH DEPTH
401 (2)	ASPHALT CEMENT, GRADE PG 58-28	6% OF ITEM 401(1), 4% OF 306(1)
402 (1)	STE-1 ASPHALT FOR TACK COAT	0.1 GAL/SQ YD @ 243 GAL/TON

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ANSKENAS Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA — Chad J. Howard — CE-10835 — REGISTERED PROFESSIONAL ENGINEER — 5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

PATH: O:\Kln\71670\Planset\C_Est.dwg

TAB: C1 Fri, 05/May/06 01:20PM lrobertson

REVISIONS

NO.	DATE	DESCRIPTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	C1	179

CULVERT REMOVAL

CL STATION	TYPE	DIAMETER (in)	LENGTH (ft)	OFFSET (ft)	REMARKS
"O" 161+57	CMP	18	50	20.0 LT - 18.0 RT	CROSS CULVERT
"O" 162+21	CPP	18	~~28~~ 29	21.5 LT - 21.1 LT	HOUSE 3177
"O" 162+87	CPP	18	31 4	20.0 LT - 18.5 LT	HOUSE 3195
"O" 163+62	CPP	12	29 5	17.0 LT - 13.0 LT	HOUSE 3225
"O" 166+10	CMP	18	60	3.0 LT - 56.0 RT	CROSS CULVERT
"O" 167+80	CMP	18	~~38~~ 46	17.0 LT - 22.0 RT	CROSS CULVERT
"O" 168+73	CMP	18	~~158~~ 158	23.0 RT - 29.0 RT	PARALLEL TO ROADWAY
"O" 170+17	CMP	12	~~20~~ 28	29.0 LT - 26.0 LT	HOUSE 3349
"O" 170+94	CMP	12	~~30~~ 31	23.0 LT- 21.0 LT	HOUSE 3357
"O" 171+35	CMP	12	28	21.0 LT - 19.0 LT	HOUSE 3373
"O" 172+15	CMP	12	~~34~~ 30	17.0 LT - 17.0 LT	HOUSE 3391
"O" 172+44	CMP	18	~~36~~ 44	18.0 LT - 29.0 RT	CROSS CULVERT
"O" 173+13	CMP	12	~~36~~ 35	16.0 LT - 16.0 LT	HOUSE 3401
"O" 174+48	CMP	12	25	16.0 LT - 16.0 LT	HOUSE 3447
"O" 174+76	CMP	18	~~26~~ 42	16.0 LT - 30.0 RT	CROSS CULVERT
"O" 175+37	CMP	18	~~28~~ 31	21.0 LT -21.0 LT	HOUSE 3447
"O" 176+00	CMP	18	~~44~~ 54 5	17.0 LT - 27.0 RT	CROSS CULVERT
"O" 177+36	CMP	12	95	21.0 LT - 21.0 LT	HOUSE 3469 & 3493
"O" 178+47	CMP	18	~~36~~ 52	20.0 LT - 26.0 RT	CROSS CULVERT
"O" 179+42	CMP	18	~~36~~ 56	18.0 LT - 23.0 RT	CROSS CULVERT
"O" 182+70	CMP	18	49	19.0 LT - 19.0 LT	BUGGE STREET
~~"O" 184+00~~	~~CMP~~	~~18~~	~~31~~	~~19.0 LT - 21.0 LT~~	HOUSE 3603
~~"O" 184+28~~	~~CMP~~	~~18~~	~~21~~	~~21.0 LT - 21.0 LT~~	HOUSE 3617
"O" 184+40	CMP	18	~~36~~ 41	23.0 LT - 22.0 RT	CROSS CULVERT
"o" 184+59	CPP	12	~~30~~ 28 4	21.0 RT - 21.0 RT	HOUSE 3623
"O" 185+33	CMP	12	~~28~~ 29 2	18.0 RT -18.0 RT	HOUSE 3642
"O" 185+33	CMP	18	~~38~~ 40 5	22.0 LT -22.0 LT	HOUSE 3635
"O" 186+08	CMP	12	~~34~~ 33	16.0 RT - 20.0 RT	HOUSE 3670
"O" 186+26	CMP	18	50	22.0 LT -22.0 LT	HOUSE 3657
"O" 187+25	CPP	18	~~28~~ 20 5	19.0 LT - 19.0 LT	HOUSE 3678
"O" 187+50	CMP	18	~~38~~ 42	21.0 LT - 21.0 LT	HOUSE 3683
"O" 184+49	CMP	18	~~40~~ 38	20.0 LT -20.0 LT	JUSTICE COURT
"O" 190+70	CMP	18	~~2025~~ 5	20.0 LT - 20.0 LT	HOUSE 3726
"O" 190+87	CMP	18	~~26~~ 25	21.0 LT -21.0 LT	HOUSE 3739
"O" 191+62	CMP	18	~~28~~ 27	23.0 LT - 25.0 LT	HOUSE 3739
"O" 192+20	CPP	18	20	21.0 LT - 19.0 LT	
"O" 202+26	CMP	36	~~54~~ 49	5.0 LT - 38.0 RT	CROSS CULVERT
~~"O" 202+34~~	~~DI~~	~~8~~	~~26~~	~~8.0 LT - 36.0 LT~~	DID NOT EXIST
"O" 202+40	CMP	12	~~30~~ 16	34.0 RT - 32.0 RT	HOUSE 3974
"O" 203+07	CMP	18	~~80~~ 59	10.0 LT - 10.0 LT	OLD HOMESTEAD ROAD
"O" 203+65	CMP	18	~~28~~ 16 5	8.0 LT - 8.0 LT	HOUSE 3993
"O" 204+05	CMP	18	~~24~~ 20	9.0 LT - 11.0 LT	HOUSE 3933
"O" 206+48	CMP	24	84 82	18.0 LT - 47.0 RT	CROSS CULVERT
~~"O" 206+60~~	~~CMP~~	~~36~~	~~9~~	~~24.0 LT -33.0 LT~~	DID NOT EXIST
"O" 219+65	CMP	12	20 7	54.0 RT -50.0 RT	HOUSE 4284
"O" 221+67	CMP	18	~~50~~ 47	15.0 LT - 34.0 RT	CROSS CULVERT
"O" 226+09	CMP	18	~~36~~ 47	13.0 LT - 31.0 RT	CROSS CULVERT
"O" 228+10	CMP	18	~~50~~ 74	17.0 LT - 32.0 RT	CROSS CULVERT
"O" 232+10	CMP	18	53	20.0 LT - 32.0 RT	CROSS CULVERT
"O" 237+14	CMP	24	~~78~~ 63	24.0 LT - 48.0 RT	CROSS CULVERT
"O" 241+30	CMP	24	54	12.0 LT - 42.0 RT	CROSS CULVERT
"O" 245+10	CMP	18	~~36~~ 46	14.0 LT - 31.0 RT	CROSS CULVERT
"O" 248+22	CMP	18	~~84~~ 61	15.0 LT - 48.0 RT	CROSS CULVERT
"O" 249+91	CMP	18	64	20.0 LT - 44.0 RT	CROSS CULVERT
163+25	CMP		10	RT	TO HYDRANT
164+50	CMP	~~TOTAL~~ =	~~2590~~ 31	LT	DRIVEWAY
171+38	CMP		20	LT	NOT IN PLANS
169+78	CMP		189		3 FISH PIPE CULVERTS
173+75			45	LT	HSE 3419
177+60			20	LT	HSE 3493 YARD DRAIN
182+75			10		P-15 SLEEVE
184+49			38	RT	JUSTICE CT.
191+50			39	RT	HSE 3754
253+36	CMP		64		CROSS CULVERT
270+04	CMP		49		CROSS CULVERT
216+25	CMP		65.0	RT	LOOP RD - SOUTH
220+75	CMP	12"	20.0	RT	HSE 4302
		TOTAL =	2750.7		

REMOVAL OF STRUCTURES & OBSTRUCTIONS

"O" STATION	OFFSET	DESCRIPTION
163+77 - 164+30	LT	78' of Wooden Fence at House 3225
163+90	8.0' LT	Sanitary Sewer Manhole
165+50	LT	Septic Tank
169+79	37.5' LT	Concrete Headwall
170+80	LT	Rock Headwall
171+55 - 172+04	LT	52' of Stacked Rock Wall
172+00	LT	Rock Headwall
172+30	LT	Rock Headwall
172+31 - 172+90	LT	64' of Stacked Rock Wall
179+90	RT	Relocate Existing Gate
180+12	RT	Relocate Existing Rotary Signs & Plaque
181+65	RT	Balustrade Posts (2)
182+00	RT	Vault Toilets & Structure
183+25	RT	Concrete Driveway House 3596
183+45	60' RT	5' of Concrete Retaining Wall
197+36	LT	Gate
203+64	LT	Shed
203+90	LT	House 3993
204+63	RT & LT	Concrete Headwall & Wingwalls As Rqd

GUARDRAIL REMOVAL

BEGIN "O" STATION	END "O" STATION	OFFSET LT	OFFSET RT	LINEAR FOOT	REMARKS
161+10	161+88		X	78 5	
164+46	165+87		X	~~141~~ 152	
166+17	167+55		X	~~130~~ 146 5	
167+83	168+45	X	X	~~58~~ 66	
168+73	169+11	X		~~38~~ 41 6	
169+44	170+05	X		~~58~~ 66	
174+48	175+60		X	~~112~~ 115	
178+42	179+61		X	~~125~~ 128 8	
193+75	197+58		X	~~425~~ 428 7	
198+59	198+93		X	~~39~~ 40 1	
199+35	200+09		X	~~77~~ 78 2	
204+15	205+28	X		~~115~~ 116 2	
204+35	206+09		X	~~177~~ 177 7	
226+58	227+58		X	~~100~~ 103 4	
228+09	228+95		X	~~88~~ 78	
229+45	229+84		X	~~38~~ 41 2	
230+63	234+79		X	~~412~~ 414	
235+27	237+15		X	~~188~~ 190.7	
237+58	238+14		X	~~56~~ 59.2	
241+17	~~241+54~~		~~X~~	~~37~~	
~~247+75~~	248+41		X	~~80~~ 678.1	
262+62	263+15		X	63	
262+00	262+12		X	12.5	
			TOTAL =	3275.4	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date ____

NOTE:

SEE K SHEETS FOR ROCKERY WALL & RETAINING WALL SUMMARY, SEE J-SHEETS FOR RECESSED PAVEMENT MARKER SUMMARY, AND SEE T-SHEETS FOR INVASIVE PLANT SUMMARY.

25D-025
12/82

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Sheet 6 of 17
Project No: MGS-STP-0902(20)/71670, 68581 & 69082

Project Name & Location:
South Tongass Hwy Widening & Reconstruction

FINAL ESTIMATE
***ALL PROJECTS* (71670, 68581 & 69082)**
SUMMARY OF QUANTITIES - New Items Established by Change Order

Item No.	FA Code	Act. Code	Item		Unit	Unit Price	Quantity	Amount
104(1)		450	Extended Field Overhead	CO#26	L.S.	82,800.00	All Req'd	82,800.00
203(6)		450	Borrow	CO#20	Ton	29.70	3,948.24	117,262.73
203(21)		450	Rockfill Buttress	CO #8	L.S.	96,242.32	All Req'd	96,242.32
203(22)		450	Backslope Benching	CO#14	L.S.	463,317.45	All Req'd	463,317.45
203(23)		450	Drainage Modifications	CO#21	L.S.	14,979.82	All Req'd	14,979.82
203(24)		450	Rock Wall Repair	CO#22	L.S.	5,123.37	All Req'd	5,123.37
203(25)		450	Grade Ajustment	CO#17	L.S.	5,585.03	All Req'd	5,585.03
203(26)		450	Backwall Stabilization	CO#24	L.S.	9,171.35	All Req'd	9,171.35
203(27)		450	Usable Excavation Settlement	CO#26	L.S.	225,750.00	All Req'd	225,750.00
204(2)		450	Bedding Haul	CO#9	Ton	11.50	5,623.09	64,665.54
308(1A)		450	CABC Processing Settlement	CO # 26	L.S.	106,800.00	All Req'd	106,800.00
401(1B)		450	Asphalt Concrete Type II Class C	CO#10	Ton	70.00	543.81	38,066.70
401(9)		450	Loop Road Paving	CO#15	L.S.	30,320.00	All Req'd	30,320.00
401(10)		450	Blend Sand for Asphalt	CO#16	Ton	44.28	401.90	17,796.13
501(11)		450	Wall Coping	CO#7	L.S.	16,447.75	All Req'd	16,447.75
606(14)		450	Guardrail Modifications	CO#19	L.S.	7,620.44	All Req'd	7,620.44
626(11)		450	Sewer Pipe Stub-out	CO#6	L.S.	9,386.68	All Req'd	9,386.68
626(12)		450	Utility Modifications	CO#18	L.S.	8,704.47	All Req'd	8,704.47
627(1D)		450	Water Service Crossing 1 In HDPE	CO#1	L.F.	73.64	2,696.60	198,577.62
627(11)		450	Fire Hydrant Installation	CO#12	L.S.	4,632.12	All Req'd	4,632.12
627(12)		450	Fire Hydrant Service Aprons	CO#23	L.S.	15,000.00	All Req'd	15,000.00
630(3)		450	Geotextile, Stabilization	CO#2	S.Y.	2.53	3,640.60	9,210.72
641(8)		450	Sand Bags	CO#13	Each	6.87	611.00	4,197.57
643(31)		450	Road Shift	CO#5	L.S.	11,956.97	All Req'd	11,956.97
644(6A)		450	Vehicle Damage Repair	CO#26	L.S.	4,650.00	All Req'd	4,650.00
660(4)		450	Clearance and Adjustment	CO#4	L.S.	4,403.30	All Req'd	4,403.30
660(15)		450	Reinstall Guywires	CO#25	L.S.	1,714.78	All Req'd	1,714.78
661(7)		450	Disconnects	CO#3	Each	8,142.86	7.00	57,000.00
662(7)		450	Electrical Service to Restroom Bldg	CO#11	L.S.	11,720.92	All Req'd	11,720.92
			Page Total for C.O. items					$ 1,643,103.78

Prepared By: B.Germain/FMarkscheffel Date: Nov 08/Apr 09 Checked By: _____ Date: 3-16-09

68581 69082

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date _____

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA · 49th · Chad L. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

PATH: G:\ktn\71670\Planset\D_Sum1.dwg
TAB: D1 Thu, 20/Apr/06 01:55PM lroberrson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D1	179

STORM DRAIN STRUCTURE

Structure No.	Structure Type	Frame & Grate Type	CONTROL POINT "O" Station	CONTROL POINT Offset	CONTROL POINT Elevation	SUMP	REMARKS
S-1	INLET, TYPE A	FIELD INLET	161+87 50	LT 25.4 1	E 31.60' 68	YES	CONCRETE DRAINAGE COLLAR
S-2	MANHOLE, TYPE I	STORM DRAIN LID	161+58 3	RT ~~17.0~~ 16 7	31.05'	YES	CONNECT TO EXISTING 18" CMP INV. 26.25
S-3	INLET, TYPE A	FIELD INLET	162+53 1	LT ~~24.0~~ 23 6	E ~~31.40~~ 32 05	YES	CONCRETE DRAINAGE COLLAR
S-4	INLET, TYPE A	FIELD INLET	163+40 39 0	LT 23.5 0	E ~~30.90~~ 31 13	YES	CONCRETE DRAINAGE COLLAR
S-5	INLET, TYPE A	FIELD INLET	164+04 0	LT 23.5	E ~~30.70~~ 30 95	YES	CONCRETE DRAINAGE COLLAR
S-6	INLET, TYPE A	FIELD INLET	171+58 55 3	LT ~~26.5~~ 24 3	E ~~31.70~~ 31 45	YES	CONCRETE DRAINAGE COLLAR
S-7	INLET, TYPE A	CURB INLET	175+99 98 9	RT 17.0	31.00'	YES	
S-8	~~INLET~~, TYPE A 1	30" CURB INLET	179+35	RT 17.0	31.90'	YES	
S-9	INLET, TYPE A	DEPRESSED INLET	180+02	RT 61.0	32.85'	YES	
S-10	~~MANHOLE~~, TYPE A	STORM DRAIN LID	180+60	LT 16.2	34.70'	YES	
S-11	MANHOLE, TYPE I	GUTTER INLET	182+75	RT 17.0	41.02'	YES	
~~S-12~~	~~INLET, TYPE A~~	~~FIELD INLET~~	~~182+99~~	~~LT 28.5~~	~~40.00'~~	YES	~~CONCRETE DRAINAGE COLLAR~~ DELETED
S-13	MANHOLE, TYPE I	GUTTER INLET	184+38	RT 17.0	48.62'	YES	
S-14	INLET, TYPE A	FIELD INLET	184+58 49 0	LT ~~27.5~~ 27 1	47.00'	YES	12" SUMP - CONCRETE DRAINAGE COLLAR
S-15	MANHOLE, TYPE I	GUTTER INLET	185+68	RT 17.0	54.38'	YES	
S-16	MANHOLE, TYPE I	FIELD INLET	185+70 4	LT 22.0 4	E 52.80' 40	YES	
S-17	INLET, TYPE C	N/A	186+63 63 2	LT 24.0	E 55.70' 03	N/A	
S-18	INLET, TYPE A	FIELD INLET	187+25 74 0	LT 22.5 3	59.50'	YES	CONCRETE DRAINAGE COLLAR
S-19	INLET, TYPE A	GUTTER INLET	187+79 0	RT 17.0 4	60.33'	YES	CONNECT OVERFLOW & YARD DRAIN
S-20	INLET, TYPE A	GUTTER INLET	190+18 12 4	LT ~~23.0~~ 21	61.28'	YES	CONCRETE DRAINAGE COLLAR
S-21	INLET, TYPE A	FIELD INLET	191+34 3	LT 24.0 1	E ~~60.65~~ 60 23	YES	
S-22	INLET, TYPE A	GUTTER INLET	193+36 29 0	LT 17.0	~~55.50~~ 54 93	YES	
S-23	MANHOLE, TYPE II	STORM DRAIN LID	202+17 74	RT 34.0 3	~~29.90~~	YES	
S-24	MANHOLE, TYPE II	FIELD INLET 201+00	~~202+17~~	LT ~~42.0~~ 41 8	E ~~30.00~~ 31 5	YES	CONCRETE DRAINAGE COLLAR
S-25	MANHOLE, TYPE II	FIELD INLET	206+60 2	LT ~~29.0~~ 25 7	E ~~29.65~~ 29 95	YES	CONCRETE DRAINAGE COLLAR
S-26	MANHOLE, TYPE I	FIELD INLET	228+12	LT 22.0	34.30'	YES	CONCRETE DRAINAGE COLLAR
S-27	INLET, TYPE A	FIELD INLET	232+10	LT 27.5	34.70'	YES	CONCRETE DRAINAGE COLLAR
S-28	INLET, TYPE C	N/A	241+38 29 4	LT ~~26.0~~ 25 8	E ~~31.20~~ 30 40	N/A	
S-29	INLET, TYPE C	N/A	245+10	LT 26.0	25.60'	N/A	
S-30	INLET, TYPE C	N/A	248+20	LT 27.6	25.80'	N/A	
S-31	INLET TYPE, C	N/A	249+90	LT 26.0	27.80'	N/A	
S-11B	INLET TYPE A		183+67 8 0	RT 57 5		29 90	

S-6B INLET TYPE A 171+07 0 328 LT P-6 INLET

STORM DRAIN STRUCTURE NOTES:

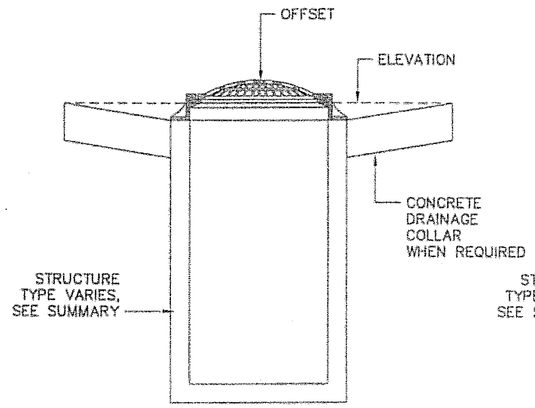
1. STORM DRAIN MANHOLE, TYPE I SHALL CONFORM TO STD. DWG. D-35.00.
2. STORM DRAIN MANHOLE, TYPE II SHALL CONFORM TO STD. DWG. D-36.00.
3. CURB INLETS & GUTTER INLETS SHALL CONFORM TO STD. DWG. D-25.00.
4. FOR INLET, TYPE C & FIELD INLET DETAILS, SEE SHEET J2.

NOTE:

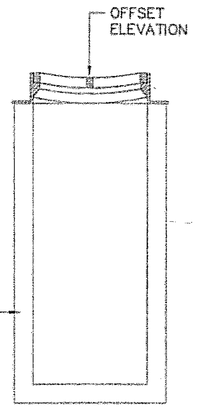
SEE K SHEETS FOR ROCKERY WALL & RETAINING WALL SUMMARY, SEE J-SHEETS FOR RECESSED PAVEMENT MARKER SUMMARY, AND SEE T-SHEETS FOR INVASIVE PLANT SUMMARY.

STORM DRAIN PIPE

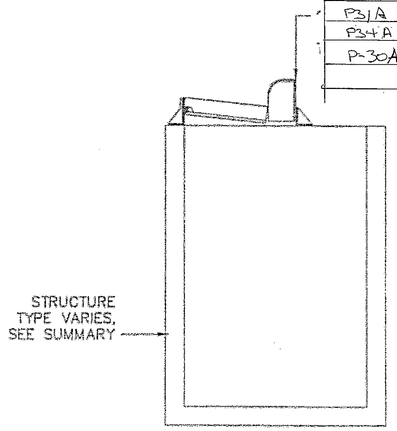
PIPE NO.	TYPE	DIAMETER (in)	LENGTH (ft)	FROM STRUCTURE/STATION	INVERT	TO STRUCTURE/STATION	INVERT	REMARKS
P-1	CPP	18	26.0	EXISTING PIPE 161+33 24.0 LT	30.38 34	S-1	~~29.37~~ 28.84	CONNECT TO EXISTING 18" CMP WITHIN ROW 6.35%
P-2	CPP	18	~~42.4~~ 41	S-1	28.82 46	S-2	~~27.86~~ 26.31	3.78%
P-3	CPP	18	~~95.6~~ 96	S-3	~~29.40~~ 28.90	S-1	~~28.62~~ 28.84	0.28%
P-4	CPP	18	61.5	S-4	~~28.90~~ 63	S-5	28.28 50	0.21%
P-5	CPP	18	~~13.0~~ 59.5	S-5	28.28 44	"O" 164+66.5, ~~26.0'~~ LT 25.3	28.09 22	0.37%
P-6	CPP	18	~~42.0~~ 48.5	S-6	~~29.20~~ 28.8	"O" ~~171+18, 30.0' LT~~	28.50	0.62%
P-7	CPP	24	~~45.0~~ 46.7	"O" 176+00, ~~28.0'~~ 27.9 LT	27.70	S-7	~~27.00~~ 26.2	3.24%
P-8	CPP	24	~~19.5~~ 21	S-7	~~27.00~~ 26.2	"O" 176+00, 36.5' RT	25.80	2.11%
P-9	CPP	24	~~64.4~~ 52.6	"O" 179+58.1 30.0' LT	29.~~10~~ 25	S-8	28.20	
P-10	CPP	24	40.2' 5	S-8	28.10	"O" 178+99, 35.0' RT	27.50	CONNECT TO EXISTING 24" CMP WITHIN ROW
P-11	CPP	18	~~20.0~~ 3	S-9	28.40	"O" 180+02, 80.0' RT	28.00	
P-12	CPP	18	84.0' -	S-10	~~31.00~~ 30.32	"O" ~~179+76.5, 26.0' LT~~	29.~~78~~ 87	179+75.8 25.1 LT 1.25%
P-13	CPP	18	~~8.0~~ 9	"O" 180+~~56, 21.5'~~ 58.24 LT 20.6	31.30 29	S-10	~~31.10~~ 31.13	-2%
P-14	CPP	24	~~46.0~~ 50	S-11	36.70	"O" 182+75, 34' RT	36.30	
P-15	~~CPP~~ FAP	~~24~~ 18"	~~20.0~~ 52.6	S-12	38.00	S-11	36.80	
P-16	CPP	18	46.0' -	S-14	~~43.70~~ 46	S-13	43.20	
P-17	CPP	24	~~14.5~~ 13.5	S-13	43.10	"O" 184+36, 29.0' RT	42.90	
P-18	CPP	24	132.0'	S-15	46.40	S-13	45.00	
P-19	CPP	24	~~38.3~~ 39.5	S-16	~~47.20~~ 46 70	S-15	46.40	
P-20	CPP	24	~~90.0~~ 6	S-17	52.00	S-16	~~49.40~~ 48 03	
P-21	CPP	18	~~209.0'~~ 211.6	S-19	57.20 05	S-15	51.20	
P-22	CPP	18	~~70.0'~~ 72.5	"O" 188+50.2 29.8 RT	58.28 72	S-19	57.20	
P-23	CAP	12	~~55.0'~~ 54	S-18	~~58.00~~ 57.28	"O" 187+20, 22.0' LT	57.50	
P-24	CAP	12	~~32.9~~ 40	S-20	~~60.70~~ 59.84	"O" 190+52.2 26.0' LT	~~60.35~~ 58.99	2.12%
P-25	CPP	18	~~78.3~~ 64.0	"O" 190+~~20~~, 26.0' LT 24.3	~~60.00~~ 58.80	S-21	~~58.40~~ 57.55	1.93%
P-26	CPP	18	~~42.8~~ 46.2	S-21	~~58.40~~ 57.32	"O" 191+80.5, 26.3 LT	~~58.26~~ 57.18	0.74%
P-27	CAP	18	~~43.0~~ 46	S-22	~~58.40~~ 57.40	"O" 193+30, 26.0' LT	51.~~60~~ 57.24	
P-28	CPP	18	~~44.0~~ 56	"O" 201+72, 42.8' RT	26.50	S-23	25.50	
P-29	CPP	36	~~76.0~~ 116.3	S-24	~~22.00~~ 24.50	S-23	~~20.70~~ 22.20	
P-30	CPP	18	~~41.0~~ 32.5	"O" 202+60, 35.3' RT	27.70	S-23	25.50	
P-31	CPP	36	~~98.0~~ 99	S-25	21.80	"O" 206+~~00.5, 30.2~~ 07.2, 51.2' RT	17.~~00~~ 13	
P-32	CPP	18	~~55.0~~ 75.4	S-26	28.20	"O" 228+07, 34.0' RT	25.50	CONNECT TO EXISTING 18" CMP WITHIN ROW
P-33	CPP	18	~~68.0~~ 69.2	S-27	31.90	"O" 232+~~07~~ 06.9, 40.7 ~~44.0~~ RT	~~29.00~~ 28.8	
P-34	CPP	24	~~53.0~~ 60	S-28	28.~~00~~ 33	"O" 241+30.5, 41.4 RT	~~25.70~~ 24.56	
P-35	CPP	24	~~58.0~~ 60.5	S-29	23.00	"O" 245+07, 40' RT	21.40	
P-36	CPP	24	~~70.0~~ 67	S-30	24.20	"O" 248+25, 40.3' RT	20.70	
P-37	CPP	24	~~73.0~~ 70	S-31	25.20	"O" 249+94, 51.3' RT	20.00	
PW-2	CAP	12	29.5			183+60 RT		HSE 3596 YARD DRAIN
PW-1	CAP	18	28.5			183+61 RT		HSE 3598 YARD DRAIN
P31A	CAP	18	5.5	S-25A		210+75 RT		LOOP ROAD
P34A	CPP	24	60.0	S-28A		241+35		ADDED PER A.E.
P-30A	CPP	36	24.0	S-23		202+27 RT		ADDED PER A.E.



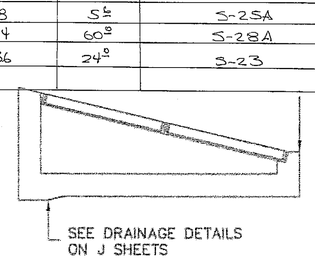
FIELD INLET



GUTTER INLET



CURB INLET



INLET, TYPE C

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr AK SHEPARD Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.CARROLL

STATE OF ALASKA 1959 Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 5-5-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

PATH: Q:\Kln\71670\Planset\D_Sum1.dwg

TAB: D2 Fri, 05/May/06 09:36AM rksnyder

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D2	179

CROSS CULVERT PIPE

PIPE NO.	TYPE	DIA. (in)	INVERT IN "O" STA	INVERT IN OFFSET	INVERT IN ELEV	INVERT OUT "O" STA	INVERT OUT OFFSET	INVERT OUT ELEV	END SECTION	LENGTH (ft)	REMARKS
P-100	CPP	18	166+04	LT 31.0	27.0'	166+19	RT 56.0	24.9'	NO	~~36~~ 35	CONNECT TO EXISTING 18" CMP WITHIN ROW
P-101	CPP	24	172+43	LT 28.0	29.9'	172+43	RT 37.5	26.8'	YES	~~56~~ 60.5	
P-102	CPP	18	174+75	LT 28.0	29.0'	172+45	RT 30.0	25.0'	NO	58	CONNECT TO EXISTING 18" CMP WITHIN ROW
P-103	CPP	24	178+44	LT 28.0	28.9'	178+44	RT 34.5	26.9'	NO	62.7	
P-104	CPP	24	197+00	LT 27.0	40.7'	197+15	RT 54.5	39.4'	YES	~~87~~ 88.4	
P-105	CPP	24	208+25	LT 32.0	32.0'	208+81	RT 44.1	33.0'	NO	~~95~~ 94.7	
P-106A	CPP	36	214.93	LT 42.8	43.8	215.95	RT 49.4	40.6	NO	135	
P-107	CPP	18	221+67	LT 30.5	39.9'	221+67	RT 35.0	MATCH EXIST	NO	~~86~~ 66	CONNECT TO EXISTING CATCH BASIN
P-108	CPP	18	226+10	LT 30.0	31.7'	226+07	RT 34.0	24.7'	YES	~~64~~ 66.5	CONNECT TO EXISTING 18" CMP WITHIN ROW
P-109	CPP	24	237+13	LT 26.6	33.3'	237+15	RT 47.4	28.4'	YES	~~76~~ 78	

CROSS CULVERT PIPE EXTENSION

PIPE NO.	TYPE	DIA. (in)	INVERT IN "O" STA	INVERT IN OFFSET	INVERT IN ELEV	INVERT OUT "O" STA	INVERT OUT OFFSET	INVERT OUT ELEV	LENGTH (ft)	REMARKS
P-38	CPP	24	253+36	RT 40.0	MATCH EXIST	253+36	RT 46.0	MATCH EXIST	~~8~~ 70	CONNECT TO EXISTING 24" CPP
P-39	CPP	24	257+98	RT 26.0	MATCH EXIST	257+98	RT 45.0	MATCH EXIST	~~18~~ 16	CONNECT TO EXISTING 24" CPP
P-40	CPP	24	270+04	RT 27.0	MATCH EXIST	207+04	RT 53.0	MATCH EXIST	~~26~~ 75	CONNECT TO EXISTING 24" CPP
P-41	CPP	24	272+31	RT 7.0	MATCH EXIST	272+35	RT 44.0	MATCH EXIST	37.2	CONNECT TO EXISTING 24" CPP
P-42	CPP	36	274+61	LT 30.0	30.2'	274+73	RT 57.0	27.0'	~~87~~ 89	CONNECT TO EXISTING 36" CMP
P-43	CPP	24	275+61	LT 17.0	MATCH EXIST	275+50	RT 47.0	MATCH EXIST	~~45~~ 96	CONNECT TO EXISTING 24" CPP

PATH & DRIVEWAY CULVERT PIPE

CL STATION	TYPE	DIAMETER (in)	LENGTH (ft)	OFFSET (ft)	REMARKS
"O" 168+63	CAP	18	30	26.0 LT - 29.8 LT	HOUSE 3315
"O" 169+25	CAP	18	~~30~~ 40	34.3 LT - 38.0 LT	HOUSE 3333
"O" 170+19	CPP	18	42	30.0 LT -38.0 LT	HOUSE 3349
"O" 170+96	CPP	18	~~20~~ 35	30.0 LT -32.0 LT	HOUSE 3357
"O" 173+14	CPP	18	48	28.0 LT	HOUSE 3401 - SLOPE TO DRAIN TO P-101
"O" 174+50	CPP	18	34	28.0 LT	HOUSE 3447
"O" 175+30	CPP	18	34	26.0 LT	HOUSE 3447
~~"O" 184+00~~	~~CPP~~	~~18~~	~~40~~	~~21.0 - 26.0 LT~~	HOUSE 3603 - ATTACH TO EXISTING CATCH BASIN
"O" 196+80	CPP	18	~~20~~ 26.2	35.4 RT-53.3 RT	ACROSS PATH
"O" 197+20	CPP	24	~~20~~ 25	80.0 RT-100.0 RT	ACROSS P.P. ACCESS
"O" 199+00	CPP	18	~~30~~ 36.8	72.7 RT-62.5 RT	HOUSE 3910
"O" 199+50	CPP	18	50	115.27 RT	HOUSE 3930
"O" 206+50	CPP	18	~~35~~ 83	47.2 RT-40.4 RT	HOUSE 4056
"O" 209+85	CPP	18	~~22~~ 37.7	103.2 RT-93.6 RT	ACROSS PATH
"O" 216+16	CPP	~~24~~ 36	~~32~~ 38	86.6 RT-115.2 RT	ACROSS PATH
"O" 219+07	CPP	18	20	36.3 RT-56.3RT	ACROSS PATH
"O" 219+65	CPP	18	26.4	55.0 RT-55.0 RT	HOUSE 4284
176+50	CAP	18	12	LT	FH ACCESS
177+60	CAP	18	20	40.0 LT	HSE 3493
187+10	CAP	18	7		WALL 16
217+50	CPP	18	32.6		HSE 4238 - LOOP RD.
216+25	CPP	36	65	RT	REPLACE UNDER LOOP RD.
220+75	CAP	12	28	RT	HSE 4302
231+25	CAP	12	8.5	LT	FH ACCESS

SEE K SHEETS FOR ROCKERY WALL & RETAINING WALL SUMMARY, SEE J-SHEETS FOR RECESSED PAVEMENT MARKER SUMMARY, AND SEE T-SHEETS FOR INVASIVE PLANT SUMMARY.

W-BEAM GUARDRAIL & GUARDRAIL END TREATMENTS

BEGIN "O" STATION	END "O" STATION	LT	RT	LINEAR FOOT	ET-2000	CRT	D.E.A.	REMARKS
204+07	204+69	X		62.5	1	1		R=8'
231+11	234+50		X	337.5	1		1	
241+17	N/A		X	0	1			Attach to existing guardrail
242+12	248+37		X	625.0			1	REMOVE ALL OF guardrail
262+62	N/A		X	0			1	Attach to existing guardrail
182+50		X		18.8			1	MARTIN BUGGE RD
262+00	262+62		X	62.5				NOT IN PLANS
			TOTAL =	1106.3	3	1	4	

SEE SHEETS T1-T7 FOR CHECK DAM LOCATIONS.

TEMORARY CHECK DAM

"O" STATION	LT	RT	Remarks
166+00	X		
166+10	X		
169+00	X		
170+60	X		
178+40		X	
196+65		X	
196+90	X		
197+10	X		
201+25		X	
202+00	X		
202+70		X	
206+75	X		
210+00		X	
211+00	X		
215+90	X		
216+10	X		
221+50	X		
226+00	X		
228+50	X		
232+25	X		
237+00	X		
241+00	X		
245+00	X		
248+40	X		
249+90	X		
TOTAL = 25			

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK Shepard Date 3-09

INSULATION BOARD

"O" STATION	LT	RT	MBM	REMARKS
161+60	X		0.128	
166+10		X	0.128	
169+80		X	0.128	
172+40	X		0.128	
174+75	X	X	0.256	
176+00	X	X	0.256	
178+44	X	X	0.256	
179+20		X	0.128	
179+48	X		0.128	
182+70		X	0.128	
182+90	X		0.128	
184+35		X	0.128	
184+50	X		0.128	
184+70	X	X	0.256	
186+20 - 187+70		X	1.200	Between P-29 & S.S.
187+80		X	0.128	
197+15		X	0.128	Between Ditch & Water
197+25		X	0.128	Between Culvert & S.S. F.M.
201+30		X	0.128	Between Ditch & S.S.
203+35		X	0.128	Between Ditch & S.S. F.M.
202+20	X	X	0.256	
204+60	X		0.512	
218+75		X	0.128	Between Ditch & Water
221+70	X	X	0.256	
226+10	X		0.128	
228+10	X	X	0.256	
232+10	X	X	0.256	
237+14	X	X	0.256	
241+30	X	X	0.256	
245+10	X	X	0.256	
248+25	X	X	0.256	
249+90	X	X	0.256	
		Total =	7.216	

216+75 - 215+20		X	305.0	
228+12	X		160.0	S-26
10+74 - 12+10		X	150.0	PS PED. PATH
16+40 - 18+38		X	198.4	PS PED. PATH
20+90 - 21+40		X	49.6	PS PED PATH

SILT FENCE TOTAL = 2324.1

"O" STATION TO STATION	OFFSET LT	OFFSET RT	LINEAR (FT)	REMARKS
181+70 - 182+80		X	167	Toe of new fill slope
203+65 - 204+35	X		78	Toe of fill at FP-2
204+55 - 205+25	X		62	Toe of fill at FP-2
213+50 - 217+75	X		443	Toe of new fill slope
213+85 - 216+75		X	187	Toe of new fill slope
180+00 - 181+50		X	153.7	BUGGE - ADA PATH
181+50 - 181+70		X	36.0	BUGGE - STAIRS
181+70 - 182+80		X	167.0	BUGGE - STAIRS / SLOPE
202 I	X		228.0	TOPSOIL PILE
203+53	X		51.0	FP-2
203+73	X		23.0	FP-2
204+25	X		61.4	FP-2 WEST SIDE
206+60	X		16.0	S-25
214+20 - 216+30	X	X	199.0	THRU-CUT / REPAIRS

STATE OF ALASKA 49th — Chad J. Howard CE-10835 — REGISTERED PROFESSIONAL ENGINEER — 4-26-06

& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER
PATH: Q:\Ktn\71670\Planset\0_Sum1.dwg
TAB: D3 Thu, 20/Apr/06 01:55PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D3	179

CURB & GUTTER

BEGIN "O" STATION	END "O" STATION	OFFSET LT	OFFSET RT	LINEAR (FT)	CURB & GUTTER TYPE
173+72	176+17		X	245.3	Expressway Curb & Gutter
179+18	182+39		X	~~321~~ 324	Expressway Curb & Gutter
180+04	182+68		X	~~295~~ 303	Standard Curb & Gutter
179+85	182+40		X	258	EXPRESS CURB + GUTTER
189+62	190+55		X	93.0	EXPRESS CURB + GUTTER
			TOTAL =	1223.3	

GUTTER

BEGIN "O" STATION	END "O" STATION	OFFSET LT	OFFSET RT	LINEAR (FT)	REMARKS
182+39	193+31		X	~~1092~~	992.8 Gutter
			TOTAL=	~~1092~~	992.8

4' CHAIN LINK FENCE INSTALLATION

BEGIN "O" STATION	END "O" STATION	OFFSET LT	OFFSET RT	LINEAR (FT)	REMARKS
169+55	170+02	X		~~48~~ 54	WALL #3
169+60	170+02		X	~~44~~ 54	WALL #4
178+10	179+20		X	~~110~~ 109.5	WALL #5
180+06	180+51		X	56.3	BUGGE BEACH TRAIL
182+75	31' RT TO 660.5 RT		X	35.5	BUGGE LOT - SOUTH END
183+40	183+ 89		X	48.9	WALL #7A
184+24	184+48		X	25.6	WALL #8
191+78	192+57		X	78.6	WALL #11
204+38	204+87		X	49.4	
242+00	244+18		X	218.2	
256+20	256+55		X	38.9	
256+90	258+20		X	129.5	
234+80	236+95		X	215.2	WALL #13
260+45	260+75		X	39.4	
253+20	253+50		X	30.6	
261+30	262+90		X	159.6	
		TOTAL =		1343.2	

MAILBOX INSTALLATION

"O" STATION	OFFSET	SINGLE	MULTIPLE	HOUSE NO.	REMARKS
162+45	LT	X		3195	
162+66	RT		X (2)	3204, 3226	
163+47	LT	X		3225	
164+47	LT	X		3255	
	LT		X (2)	3315	Combine 3315 & 3333 and relocate between driveways.
169+00	LT			3333	
170+00	LT	X		3349	
171+08	LT	X		3357	
170+50	RT	X		3352	
171+46	LT	X		3373	
172+31	LT	X		3391	
174+19	LT	X		3419	
175+26	LT	X		3447	
176+93	LT	X		3469	
177+79	LT	X		3493	
184+17	LT		X (2)	3603 & 3617	
185+75	RT	X		3642	
185+90	LT		X (2)	3635 & 3657	
189+30	LT		X (4)	3734, 3728, 3730,	3726 2 INSTALLATIONS
189+81	LT		X (2)	3705A & 3705B	
191+00	LT	X		3739	
198+62	RT	X		3886	
198+95	RT	X		3910	
200+69	RT	X		3930	
202+70	RT	X		3974	
205+17	LT	X		4031	Remove and Relocate Gang Box
221+99	RT	X		4326	
222+79	RT	X		4348	
227+48	RT	X		4430	
228+61	RT	X		4468	
229+85	RT	X		4492	
235+50	RT	X		4592	
237+61	RT	X		4634	
239+00	RT		X (2)	4650A & 4650 B	
161+00	LT	X		3177	
168+00	RT	X		3304	
169+37	RT	X		3322	
178+80	LT	X		3507	
183+00	RT	X		3596	
189+30	RT	X		3710	
189+82	LT		X (2)	3725 & 3727	
220+75	RT	X		4302	
224+25	RT	X		4384	
227+50	LT	X		4451	
241+00	RT	X		4692	
	TOTALS		9		

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 3-06

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

PATH: O:\Kln\71670\Planset\0_Sum2.dwg
TAB: D4 Thu, 20/Apr/06 01:56PM lroberson

REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	D4	179

DRIVEWAY SUMMARY

"O" STATION	OFFSET LT	OFFSET RT	RADIUS LT	RADIUS RT	DRIVEWAY WIDTH	LANDING % GRADE	LANDING LENGTH	PAVING LIMITS	HOUSE NO.	REMARKS
162+04.81		x	N/A		16'	-2%	10'	162+04.81, 31.00' RT	3204	Pave min. 5' beyond path
162+22.92	x		20'	20'	14'	2%	10'	162+22.92, 30.13' LT	3195	
162+83.72	x		20'	5'	15'	2%	10'	162+88.70, 25.04' LT	2986	
163+40.62		x	N/A		16'	-2%	10'	163+40.62, 31.00' RT	3226 A	Pave min. 5' beyond path
163+63.45	x		20'	20'	14'	2%	10'	163+63.32, 40.00' LT	3225 B	See G Sheets for details
164+25.07		x	20'	20'	20'	-2%	10'	164+25.07, 38.80' RT	3226 B	Pave min. 5' beyond path
164+47.64	x		20'	10'	14'	2%	10'	164+47.64, 29.65 LT	3225	See G Sheets for details
164+80.00		x	20'	20'	16'	-2%	10'	164+80.00, 37.70 RT	N/A	Pave min. 5' beyond path- House under construction, match approach
165+48.00		x	20'	20'	16'	-2%	10'	164+80.77, 39.0 rt	N/A	Pave min. 5' beyond path- match approach to house & sewer lift station.
166+90.53		x	20'	20'	18'	-2%	10'	166+90.53, 38.85' RT	N/A	
167+80.77		x	20'	20'	16'	-2%	10'	167+80.77, 38.89' RT	3304	Pave min. 5' beyond path
168+63.16	x		20'	20'	14'	-2%	10'	168+63.16, 36.00' LT	3315	
169+25.30	x		20'	20'	17'	-2%	10'	169+25.30, 36.00' LT	3333	
169+35.58		x	20'	20'	18'	-2%	10'	169+35.58, 34.00, RT	3322	Pave min. 5' beyond path
170+11.50		x	20'	20'	15'	-2%	10'	170+11.50, 34.00' RT	3352	Pave min 5' beyond path
170+19.94	x		20'	20'	18'	-2%	10'	170+19.94, 36.00' LT	3349	
170+96.45	x		20'	20'	20'	-2%	10'	170+96.45, 36.00' LT	3357	
171+17.27		x	20'	20'	14'	-2%	10'	171+17.27, 34.04' RT	3352	Pave min. 5' beyond path
171+35.49	x		20'	20'	20'	-2%	10'	171+35.49, 34.93' LT	3373	Match grade of existing concrete pad
172+15.23	x		20'	20'	14'	-2%	10'	172+15.23, 35.43' LT	3391	Match grade at garage entrance
173+13.57	x		20'	20'	20'	-2%	10'	173+13.57, 35.71' LT	3401	
173+78.16	x		20'	20'	20'	-2%	10'	173+78.16, 30.07 LT	3419	Match grade at garage entrance
174+32.05		x	N/A		24'	-2%	10'	174+32.05, 30.92' RT	turnout	Match existing Bugge Beach parking area
174+32.05	x		20'	5'	14'	-2%	10'	174+56.21, 29.73' LT	3447	
175+53.69	x		5'	20'	14'	-2%	10'	175+34.38, 27.83' LT	3447	
175+70.91		x	N/A		24'	-2%	10'	175+70.91, 31.00' RT	turnout	Match existing Bugge Beach parking area
176+96.55	x		20'	20'	16'	-2%	10'	176+96.55, 36.00' LT	3469	
177+48.14	x		20'	20'	16'	-2%	10'	177+48.14, 36.00' LT	3493	
178+71.55	x		20'	20'	16'	-2%	10'	178+71.55, 36.00' LT	3507	
179+71.63		x	N/A		24'	-2%	10'	179+71.63, 26.00' RT	turnout	New Bugge Beach parking area
182+53.16		x	N/A		24'	-2%	10'	182+53.16, 26.00' RT	turnout	New Bugge Beach parking area
183+98.12	x		20'	20'	18'	2%	10'	183+98.12, 30.11' LT	3603	
184+15.00	x		N/A		14'	-2%	10'	N/A	3596	See G Sheets for details
184+30.10		x	15'	20'	16'	2%	10'	184+30.10, 30.24' LT	3617	
184+61.48		x	N/A		15'	-2%	10'	184+51.60, 59.18, RT	3623	See G Sheets for details
~~185+30.26~~	~~x~~		~~20~~	~~20~~	~~16'~~	~~-2%~~	~~10'~~	~~185+30.26, 30.66' LT~~	~~3635~~	
185+34.16		x	N/A		16'	-2%	10'	185+34.16, 31.00' RT	3642	Pave min. 5' beyond path
186+12.21		x	N/A		24'	-2%	10'	186+12.21, 31.00' RT	3642 B/3670	Pave min. 5' beyond path
186+28.22	x		20	20	16'	-2%	10'	186+28.22, 31.05' LT	3657	
187+25.00		x	N/A		14'	2%	10'	187+18.87, 67.63' RT	3678	See G Sheets for details
187+45.87	x		20'	20'	30'	2%	10'	187+45.87, 32.29' LT	3683	
189+49.49		x	N/A		24'	2%	10'	189+49.49, 31.00' RT	Justice Ct	Pave min. 5' beyond path
189+68.00	x		20'	20'	16'	2%	10'	189+68.00, 32.29' LT	3705	
190+35.93	x		20'	20'	16'	2%	10'	190+35.93, 3145' LT	3725	
190+70.26		x	N/A		16'	2%	10'	190+70.26, 31.06' RT	3726	Pave min. 5' beyond path
190+90.43	x		20'	20'	16'	-2%	10'	190+90.43, 30.80' LT	3739 A	
191+58.78		x	N/A		16'	-2%	10'	191+60.04, 30.92' RT	3754	Pave min. 5' beyond path
191+59.78	x		20'	20'	16'	-2%	10'	191+59.78, 29.17' LT	3739 B	
~~193+57.64~~		~~x~~	~~20'~~	~~20'~~	~~14'~~	~~-2%~~	~~10'~~	~~193+57.64, 36.00' RT~~	~~3822~~	~~See G Sheets for details~~
~~197+50.00~~	199+15 LT		30'	20'	22'	-2%	10'	197+53.17, 38.42' LT	N/A	See G Sheets for details
198+00.00		x	20'	20'	14'	-2%	10'	198+00.00, 33.97' RT	3886	See G Sheets for details
198+85.00		x	20'	20'	14'	-2%	10'	199+15.00, 78.50' RT	3910	See G Sheets for details
199+75.00		x	20'	20'	14'	-2%	10'	200+24.51, 55.20' RT	3930	See G Sheets for details
202+46.48		x	20'	20'	16'	-2%	10'	202+46.48, 34.04' RT	3974	See G Sheets for details
~~203+73.81~~		~~x~~	~~20'~~	~~20'~~	~~24'~~	~~-2%~~	~~10'~~	~~203+73.81, 36.35' RT~~	~~3988~~	~~Pave min. 5' beyond path~~
205+00.00	x		20'	20'	14'	-2%	10'	205+03.49, 40.08 LT	4031	
206+33.76	x		20'	20'	20'	-2%	10'	206+33.76, 35.71' LT	4031	
206+39.03		x	20'	20'	14'	2%	10'	206+38.90, 37.31' RT	4056	See G Sheets for details
208+62.80		x	20'	20'	14'	-2%	10'	208+25.44, 85.13' RT	4082	
217+55.20		x	20'	20'	14'	-2%	10'	217+78.38, 113.58' RT	4238	
219+58.00		x	20'	20'	14'	-2%	10'	219+58.00, 78.82' RT	4284	See G Sheets for details
220+79.68		x	20'	20	16'	-2%	10'	220+79.68, 33.90' RT	4302 A&B	Pave min. 5' beyond path

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEARD Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA * 49th * Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

PATH: O:\Ktn\71670\Planset\D_Sum2.dwg
TAB: D5 Thu, 20/Apr/06 01:56PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D5	179

DRIVEWAY SUMMARY (cont.)

"O" STATION	OFFSET LT	OFFSET RT	RADIUS LT	RADIUS RT	WAY WIDTH	LANDING % GRADE	LANDING LENGTH	PAVING LIMITS	HOUSE NO.	REMARKS
221+17.06		x	20'	20'	16'	-2%	10'	221+17.06, 33.96' RT	4326	Pave min. 5' beyond path
222+09.46		x	20'	20'	16'	-2%	10'	222+09.46, 34.00' RT	4326	Pave min. 5' beyond path
222+98.62		x	20'	20'	16'	-2%	10'	222+98.62, 34.00' RT	4348	Pave min. 5' beyond path
224+03.08		x	20'	20'	16'	-2%	10'	224+03.08, 34.00 RT	4384	Pave min. 5' beyond path
224+65.65		x	20'	20'	16'	-2%	10'	224+65.65, 34.00' RT	4384	Pave min. 5' beyond path
226+49.72		x	20'	20'	16'	-2%	10'	226+49.72, 34.00' RT	4430	Pave min. 5' beyond path
227+02.66	x		12'	20'	16'	2%	10'	227+02.66, 29.73' LT	4451, 4451A	See G Sheets for details
228+15.66		x	20'	20'	16'	-2%	10'	228+15.66, 34.00' RT	4468	Pave min. 5' beyond path
229+12.43		x	20'	20'	16'	-2%	10'	229+12.43, 34.00' RT	4468	Pave min. 5' beyond path
230+05.84		x	20'	20'	16'	-2%	10'	230+05.84, 34.00' RT	4492	Pave min. 5' beyond path
234+63.00		x	20'	20'	14'	2%	10'	236+63.00, 34.00' RT	4592	See G Sheets for details
237+45.35		x	15'	15'	14'	-2%	10'	237+45.35, 33.00' RT	4634	See G Sheets for details
239+03.86		x	20'	20'	16'	-2%	10'	239+03.86, 31.58' RT	N/A	Match approach to hous
239+45.27		x	20'	20'	16'	-2%	10'	239+45.27, 32.08 RT	4672	Match existing concrete slab
240+22.44		x	20'	20'	16'	-2%	10'	240+22.44, 33.97' RT	4672	Pave min. 5' beyond path
241+03.14		x	20'	20'	16'	-2%	10'	241+03.14, 34.00' RT	4692	Pave min. 5' beyond path
163+20		X							3204	
170+90		X							3352	
184+15		X							3506	
201+95		X							LOT	
204+20		X							3986	
240+30		X							4692	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEWAD Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad D. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

MISCELLANEOUS SUMMARIES

PATH: O:\Ktn\71670\Planset\D_Sum2.dwg
TAB: D6 Thu, 20/Apr/06 01:56PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D6	179

SIGN SUMMARY

SIGN NO.	STATION	OFFSET LT	OFFSET RT	ASDS CODE	DESCRIPTION	SIZE (IN) W	SIZE (IN) H	AREA (Sq Ft)	POST SIZE	POST TYPE	FACING TRAFFIC	REMARKS
1	161+25		X	W13-1	40 MPH	24	24	4.00	2.5	PST	SB	
2	161+25		X	W1-5R	WINDING ROAD	36	36	9.00			SB	MOUNT ABOVE SIGN #1
4	171+50		X	D7-2R	ROTARY BEACH →	60	30	12.50	2	P	SB	2 POSTS (PIPE) W/ BREAKAWAY BASES
5	171+70	X		W13-1	40 MPH	24	24	4.00	2.5	PST	NB	
6	171+70	X		W1-5L	WINDING ROAD	36	36	9.00			NB	MOUNT ABOVE SIGN #5
7	179+30		X	R5-3	NO MOTOR VEHICLES	24	24	4.00	2.5	PST	NB	
8	179+60		X	R6-1R	ONE WAY	36	12	3.00	2.5	PST	SB	
9			X	R6-1L	ONE WAY	36	12	3.00			NB	MOUNT BACK TO BACK W/ SIGN #8
10			X	R7P-102	NO PARKING 12 AM TO 6 AM	12	18	1.50			WB	MOUNT BELOW SIGN #8
11	180+00		X	R7-8	RESERVED PARKING	12	18	1.50	2.5	PST	EB	R7-8 & R7-8A MAY BE COMBINED AS
12	180+00		X	R7-8A	VAN ACCESSIBLE	12	6	0.50			EB	A SINGLE SIGN
13	182+35		X	R5-1	DO NOT ENTER	36	36	9.00			WB	
14	182+42	X		R1-1	STOP	30	30	6.25	2.5	PST	WB	
15		X		D3-1	S TONGASS HWY	42	8	2.33			EB/WB	MOUNT ABOVE SIGN #14
16		X		D3-1	MARTIN BUGGE RD	48	8	2.66			NB/SB	MOUNT ABOVE SIGN #14
17	182+75		X	R1-1	STOP	30	30	6.25	2.5	PST	EB	
18	182+75		X	R5-1	DO NOT ENTER	36	36	9.00			WB	MOUNT BACK TO BACK W/ SIGN #16
19	186+85		X	R2-1	SPEED LIMIT 45	30	36	7.50	2.5	PST	SB	
20	18	X		D7-2L	← ROTARY BEACH	60	30	12.50	2	P	NB	2 POSTS (PIPE) W/ BREAKAWAY BASES
21	189+65		X	R1-1	STOP	30	30	6.25	2.5	PST	EB	
22			X	D3-1	S TONGASS HWY	42	8	2.33			EB/WB	MOUNT ON SIGN POST #21
23			X	D3-1	JUSTICE CT	30	8	1.66			NB/SB	MOUNT ON SIGN POST #21
24	201+38	X		R2-1	SPEED LIMIT 45	30	36	6.25	2.5	PST	NB	
25	202+60	X		R1-1	STOP	30	30	6.25	2.5	PST	EB	
26		X		D3-1	S TONGASS HWY	42	8	2.33			EB/WB	MOUNT ON SIGN POST #25
27		X		D3-1	OLD HOMESTEAD RD.	48	8	2.66			NB/SB	MOUNT ON SIGN POST #25
28	206+25		X	R2-1	SPEED LIMIT 45	30	36	7.50	2.5	PST	SB	
29	206+60	X		1-150	ADOPT A HIGHWAY	30	24	5.00	2.5	PST	NB	
30		X		1-150	FIRST CITY ROTARY	30	12	2.50	2.5	PST	SB	
31	206+65		X	1-150	ADOPT A HIGHWAY	30	24	5.00	2.5	PST	SB	
32			X	1-150	WY PT INN HERRING COVE	30	12	2.50	2.5	PST	SB	
33			X	D10-1	MILE 4	10	18	1.3			SB	MOUNT ON SIGN POST #31
34			X	D10-1	MILE 4	10	18	1.3			NB	MOUNT ON SIGN POST #31
35	207+90		X	R5-3	NO MOTOR VEHICLES	18	24	3.00	2.5	PST	NB	
36	208+77		X	R1-1	STOP	30	30	6.25	2.5	PST	EB	
37	208+88		X	R5-3	NO MOTOR VEHICLES	24	24	4.00	2.5	PST	SB	
38	217+12		X	R5-3	NO MOTOR VEHICLES	24	24	4.00	2.5	PST	NB	
39	217+92		X	R1-1	STOP	30	30	6.25	2.5	PST	EB	
40	218+06		X	R5-3	NO MOTOR VEHICLES	24	24	4.00	2.5	PST	SB	
41	248+87		X	R2-1	SPEED LIMIT 45	30	36	7.50	2.5	PST	SB	
42	248+87	X		R2-1	SPEED LIMIT 45	30	36	7.50	2.5	PST	NB	
					TOTAL			202.82				

ELECTROLIER

POLE NO.	STATION	OFFSET	MAST ARM LENGTH	REMARKS
1	174+57	29' RT	18'	ROTARY BEACH, IST PARKING LOT
2	176+05	29' RT	18'	ROTARY BEACH, IST PARKING LOT
3	180+00	29' RT	18'	ROTARY BEACH, 2ND PARKING LOT
4	182+85	29' RT	18'	ROTARY BEACH, BUGGE STREET
5	202+30	32' LT	10'	OLD HOMESTEAD ROAD
6	203+98	19' RT	8'	OLD HOMESTEAD ROAD
7	208+13	19' LT	8'	LOOP ROAD NORTH-(NOT OFFICIAL NAME, REFERENCE ONLY)
8	208+98	23' RT	12'	LOOP ROAD NORTH-(NOT OFFICIAL NAME, REFERENCE ONLY)
9	217+30	19' LT	8'	LOOP ROAD SOUTH-(NOT OFFICIAL NAME, REFERENCE ONLY)
10	218+20	21' RT	10'	LOOP ROAD SOUTH-(NOT OFFICIAL NAME, REFERENCE ONLY)

FLEXIBLE DELINEATOR

STATION TO STATION		OFFSET	QUANTITY	STATION TO STATION		OFFSET	QUANTITY
160+50	160+50	LT	1	176+00	176+00	LT	1
161+50	172+75	LT	15	179+25	179+25	LT	1
161+50	172+50	RT	14	225+00	227+25	RT	3
174+25	174+25	LT	1	203+70	204+82	LT	2
173+75	173+75	RT	1	230+75	230+75	RT	1
179+25	179+25	RT	1	234+60	234+60	RT	1
182+50	182+50	LT	1	241+50	241+50	RT	1
204+00	206+00	LT	3	248+50	248+50	RT	1
176+00	176+00	RT	1			TOTAL	49

JUNCTION BOX

BOX NO.	STATION	OFFSET	TYPE	REMARKS
1	174+57	22' RT	1A	IN PAVED PATH
2	176+05	22' RT	1A	IN PAVED PATH
3	180+00	22' RT	1A	IN PAVED PATH
4	182+90	22' RT	1A	IN PAVED PATH
5	202+30	25' LT	1A	IN PAVED SHOULDER
6	203+98	28' RT	1A	IN PAVED PATH
7	208+13	14' LT	1A	IN PAVED SHOULDER
8	208+13	28' RT	1A	IN PAVED PATH
9	208+98	28' RT	1A	IN PAVED PATH
10	217+30	14' LT	1A	IN PAVED SHOULDER
11	218+20	28' RT	1A	IN PAVED PATH

DISCONNECTS

BOX NO.	STATION	OFFSET	REMARKS
1	174+70	LT	
2	180+00	LT	
3	183+70	RT	
4	202+35	LT	
5	204+50	RT	
6	208+15	RT	
7	218+20	RT	

SIGNING NOTES:

1. FOR THE PURPOSES OF THIS TABLE, S TONGASS HWY OUTBOUND TRAFFIC IS CONSIDERED AS RUNNING SOUTHBOUND (SB). INBOUND TRAFFIC IS CONSIDERED AS RUNNING NORTHBOUND (NB). TRAFFIC FROM OR ONTO SIDESTREETS OR APPROACHES IS CONSIDERED AS RUNNING EAST OR WEST. (EB OR WB).
2. SIGN LOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
3. SEE STANDARD DRAWINGS S-00.10, S-01.00, S-05.01, S-20.10, S-30.03 AND S-31.00.
4. EXISTING SIGNS SHALL BE REMOVED AND DISPOSED OR SALVAGED AS DIRECTED BY THE ENGINEER.
5. SALVAGED AND DISPOSED SIGNS SHALL BE INCIDENTAL PER SECTION 615.401 OF THE STANDARD SPECIFICATIONS.
6. STEEL PIPES SHALL HAVE MULTI DIRECTIONAL BREAKAWAY COUPLINGS PER SECTION 615.2.01 OF THE STANDARD SPECIFICATIONS.
7. THE POST TYPES INDICATED IN THIS SUMMARY ARE ABBREVIATED AS FOLLOWS:

   PST = PERFORATED STEEL TUBE
   T = SQUARE STEEL TUBE
   P = ROUND STEEL PIPE
   W = "W" SHAPE BEAM

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. AK Stevens Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. MOREHOUSE
DESIGNED BY: D. FAGNANT
DRAWN BY: D. STEVENS

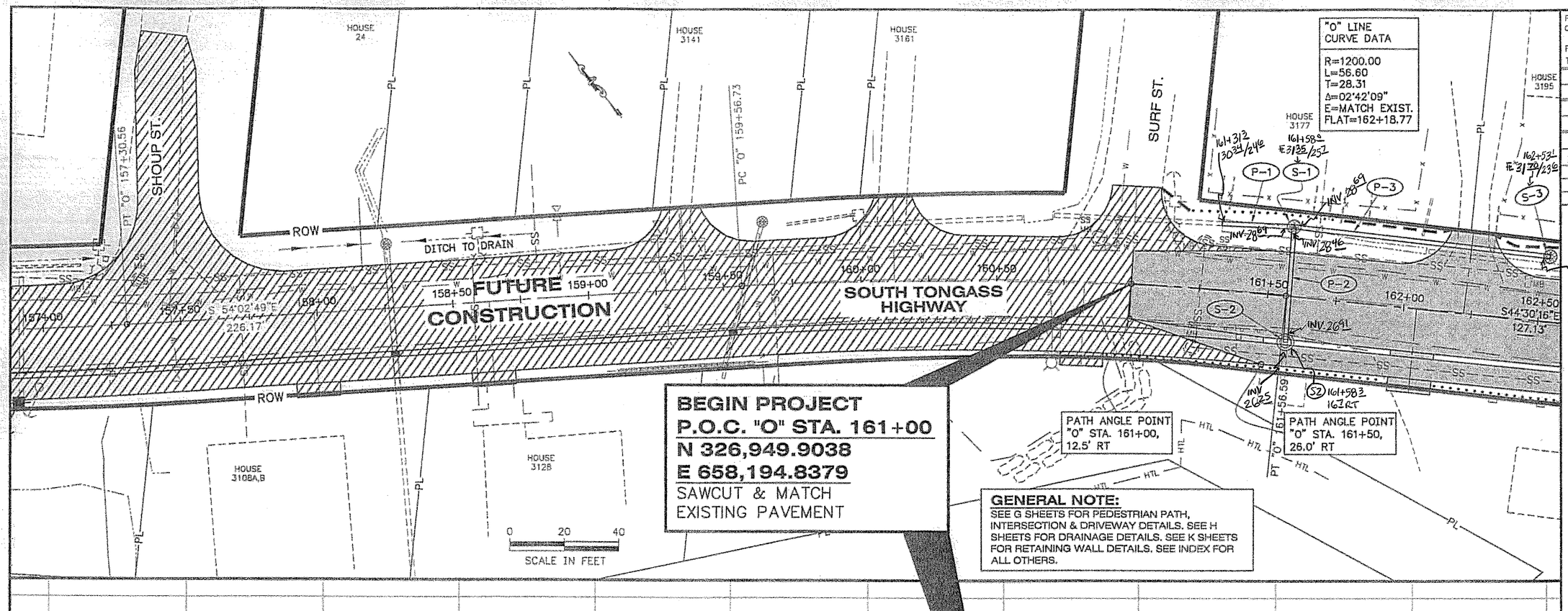
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SIGN SUMMARY

PATH: Q:\Ktn\71670\Planset\D_SignSum.dwg
TAB: D7 Thu, 20/Apr/06 01:56PM lrobertson

REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	D7	179



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHEPARD Date 3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

SPECIAL DITCH. SEE PROFILE BELOW FOR DETAILS

REMOVE EXISTING SEPTIC TANK–FIELD LOCATION REQUIRED

"O" LINE CURVE DATA
R=600.00
L=520.38
T=277.83
Δ=49°41'32"
E=4%
FLAT=162+18.77
BFS=163+07.77
EFS=167+82.02
FLAT=168+71.02

ROCKERY WALLS #1 & 2

SOUTH TONGASS HIGHWAY

SPECIAL DITCH

HOUSE UNDER CONSTRUCTION– MATCH APPROACHES

LIFT STATION

DRIVEWAY

FENCE W/FLOWER BOXES

HOUSE 3195

HOUSE 3225

HOUSE 3204

HOUSE 3226

SHED

S49°50'42"E 29.63'

STA: 163+54.25 OFFSET: 18.00 R

STA: 163+82.95 OFFSET: 19.43 R

STA: 165+57.08 OFFSET: 26.00 R

STA: 166+34.50 OFFSET: 26.00 R

STA: 167+70.18 OFFSET: 21.99 R

NB5°48'12"E 35.14'

STA: 168+04.10 OFFSET: 21.00 R

0 20 40
SCALE IN FEET

ESTIMATED EARTHWORK QUANTITIES
UNCLASSIFIED EXCAVATION = 2150 C.Y.
(INCLUDES 300 C.Y. WASTE)
EMBANKMENT = 520 C.Y.

PVI STA = 166+00
PVI ELEV = 31.78
A.D. = -0.68
K = 295.60
VC = 200'

EXISTING GROUND
FINISHED PROFILE GRADE
-0.40%
-1.08%
12" HDPE WATER
8" HDPE S.S. F.M.
10" PVC S.S.
8" PVC S.S.
26.27

SEW Node 1 STA 163+98.2 RT INVERT OUT EX 26.98 23 12" HDPE

SEW A2 STA 164+61.49 RT RIM 31.32

BVCS: 165+00 BVCE: 32.18

SEW A3 STA 165+74.52 RT RIM 29.10

SEW B12 STA 166+82.45 RT RIM 29.17

EVCS: 167+00 EVCE: 30.70

BEGIN SPECIAL DITCH "0" STA 164+66, 26.0'LT, ELEV=28.0'

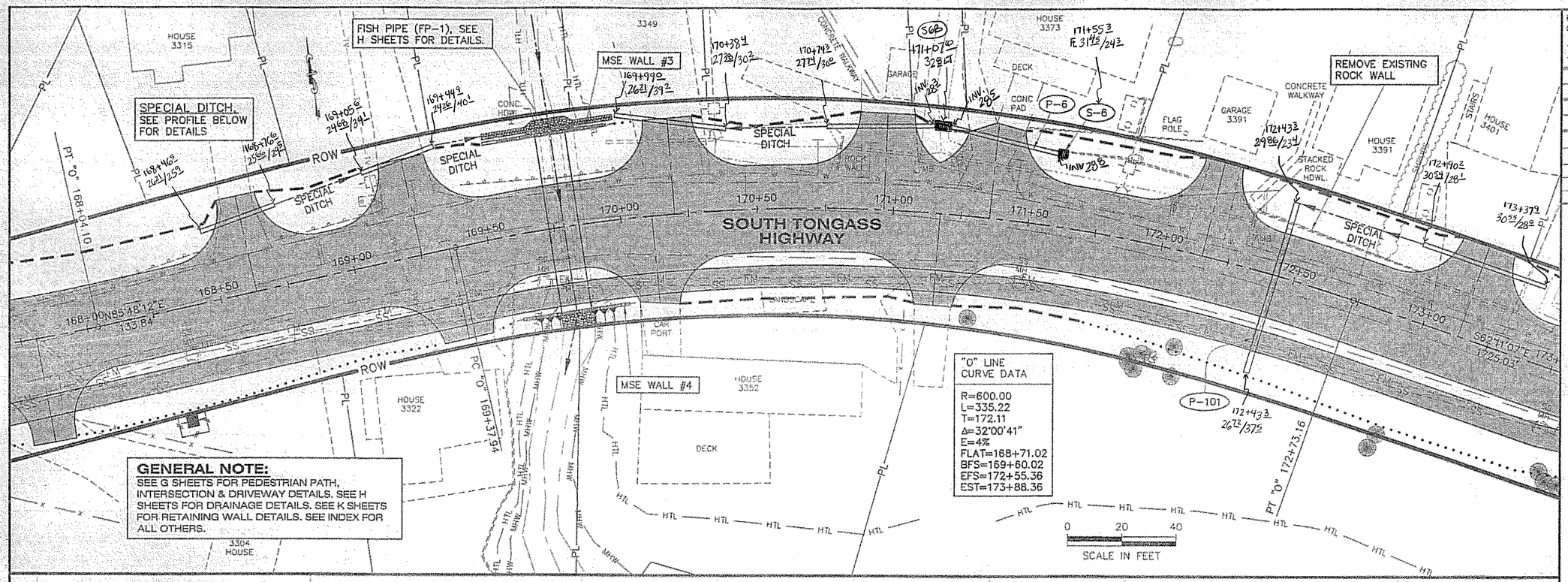
"0" STA 165+00, 27.3'LT, ELEV=27.7'

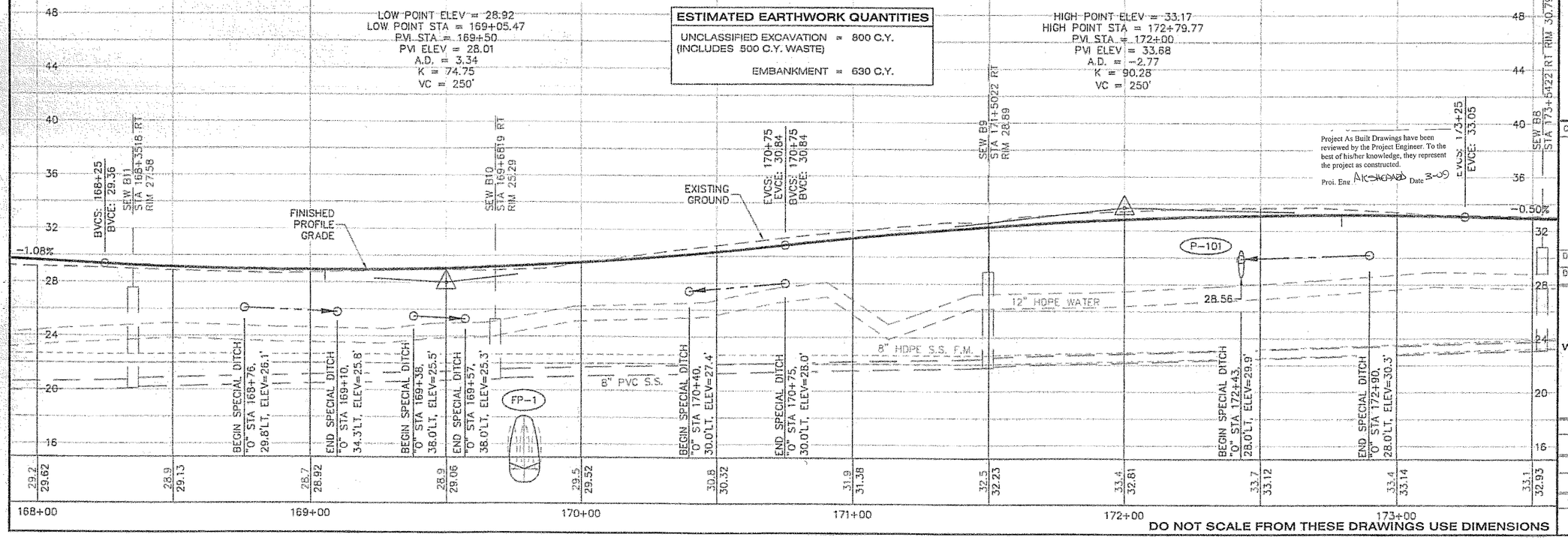
"0" STA 165+50, 29.1'LT, ELEV=27.3'

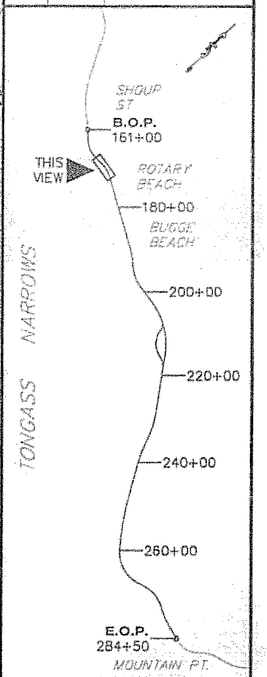
"0" STA 166+04, 31'LT, ELEV=27.0'

END SPECIAL DITCH "0" STA 166+50, 31.0'LT, ELEV=27.3'

| | | |







PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Engr. [signature] Date 3-09

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Tue, 25/Apr/06 01:39PM lrobertson
TAB: F3

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

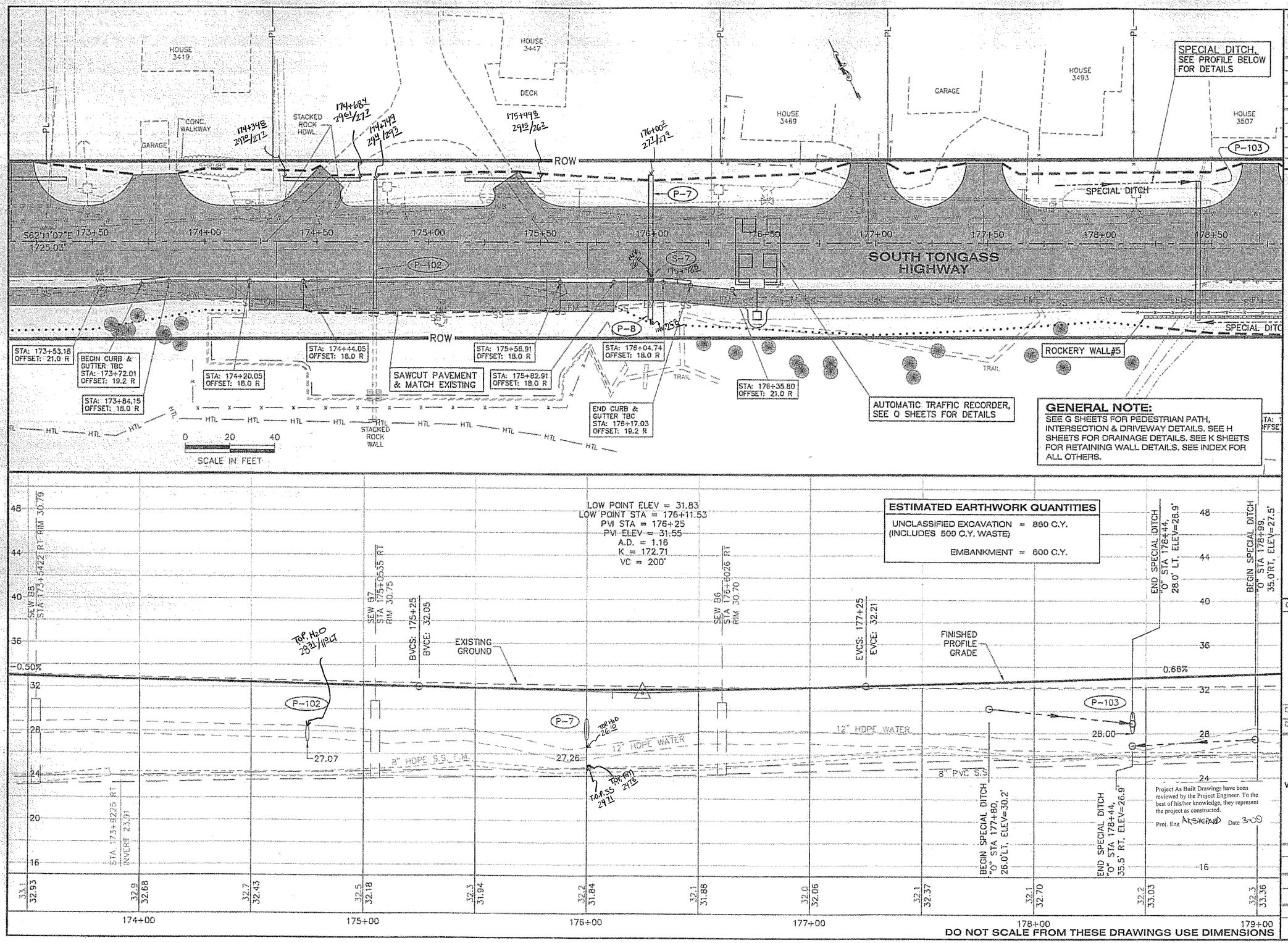
DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F3	179



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Tue, 25/Apr/06 01:39PM robertson
TAB: F4

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA — Chad J. Howard CE-10835 — REGISTERED PROFESSIONAL ENGINEER — 4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

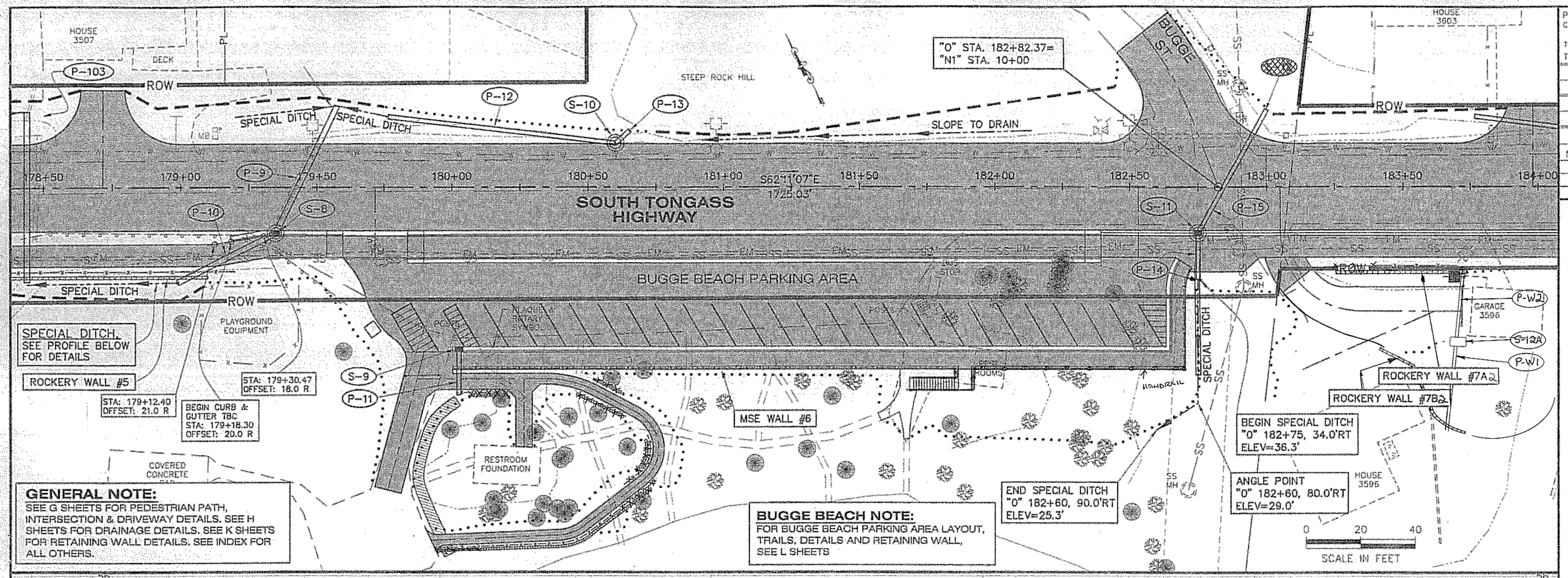
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AKSKEPAD Date 3-09

PLAN & PROFILE

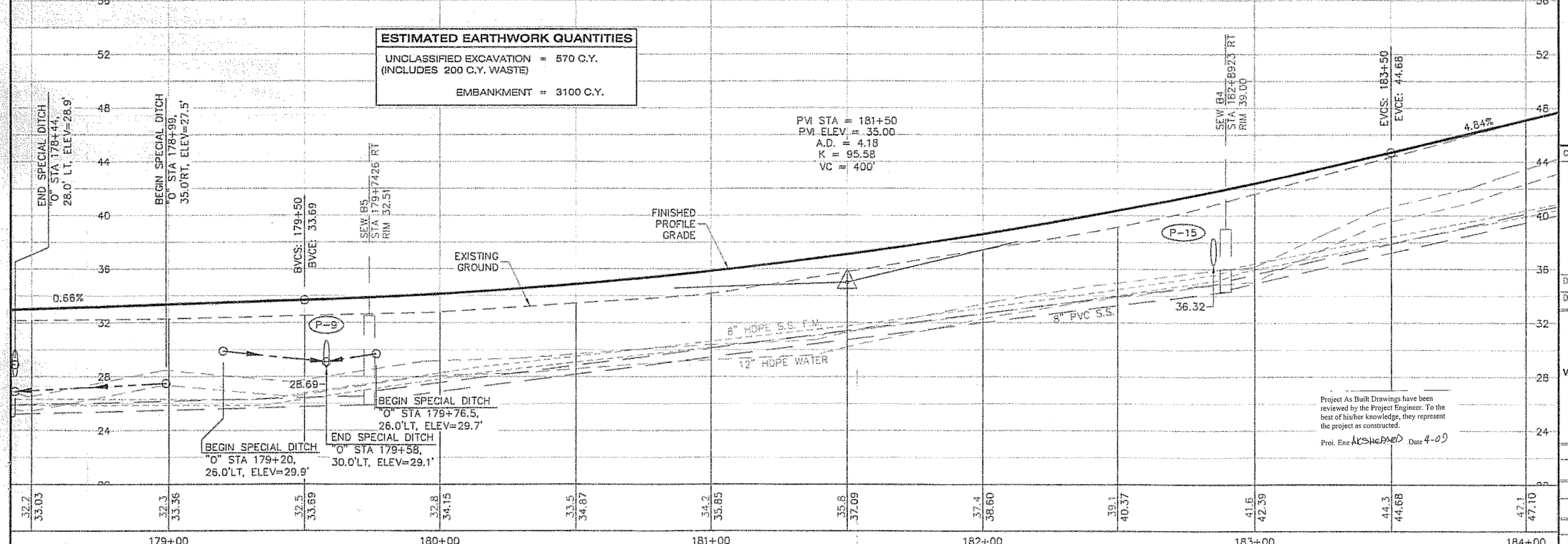
PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F4	179



ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 570 C.Y.
(INCLUDES 200 C.Y. WASTE)

EMBANKMENT = 3100 C.Y.



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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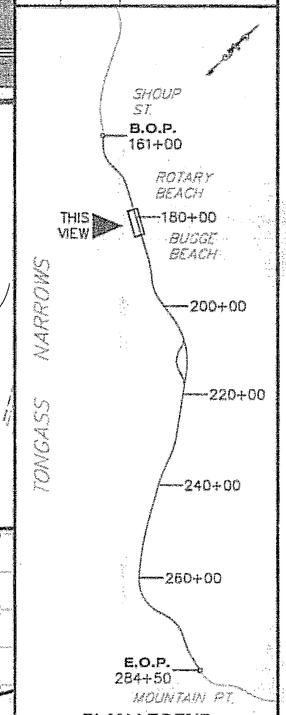
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10635
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED
DRAWN E

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

DEPT Proj. Eng _____ Date _____

S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng ACSHEPARD Date 4-09

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F5	179

SPECIAL DITCHES.
SEE PROFILE BELOW
FOR DETAILS

SOUTH TONGASS HIGHWAY

ROCKERY WALL 15

ROCKERY WALL #8

CONCRETE WALL #9

CONCRETE WALL #10

ROCKERY WALL 16

ROCKERY WALL 14

JUSTICE CT.

GARAGE 3617

HOUSE 3635 OR 3670

HOUSE 3705

HOUSE 3678

POND

SHED

CARPORT

DECK

STAIRS

TRAM

GRAVEL PARKING

AIR RELEASE

SPECIAL DITCH

ROW

S6211'07"E 1725.03'

0 20 40
SCALE IN FEET

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 600 C.Y.
(INCLUDES 200 C.Y. WASTE)

EMBANKMENT = 200 C.Y.

HIGH POINT ELEV = 62.24
HIGH POINT STA = 189+50.20
PVI STA = 188+50
PVI ELEV = 68.89
A.D. = -7.64
K = 98.14
VC = 750'

EXISTING GROUND

FINISHED PROFILE GRADE

12" HDPE WATER

8" HDPE S.S. F.M.

8" PVC S.S.

BVCS: 184+75
BVCE: 50.74

4.84%

46.74

BEGIN SPECIAL DITCH "0" STA 184+50, 27.5'LT, ELEV=47.0'

END SPECIAL DITCH "0" STA 185+00, 26'LT, ELEV=49.0'

SEW B3 STA 185+67.23 RT RIM 52.80

BEGIN SPECIAL DITCH "0" STA 185+50, 22'LT, ELEV=53.0'

"0" STA 185+70, 22'LT, ELEV=52.8'

END SPECIAL DITCH "0" STA 186+00, 22'LT, ELEV=54.0'

BEGIN SPECIAL DITCH "0" STA 186+60, 24'LT, ELEV=55.7'

"0" STA 186+70, 22'LT, ELEV=56.0'

END SPECIAL DITCH "0" STA 187+20, 22'LT, ELEV=57.5'

BEGIN SPECIAL DITCH "0" STA 188+50, 29'RT, ELEV=60.2'

END SPECIAL DITCH "0" STA 189+25, 29'RT, ELEV=61.5'

SEW B2 STA 189+46.19 RT RIM 61.59

47.1 47.10 | 49.8 49.53 | 52.1 51.92 | 54.2 54.08 | 56.0 55.99 | 57.6 57.65 | 59.0 59.05 | 60.0 60.20 | 60.9 61.09 | 61.4 61.73 | 61.8 62.11 | 61.9 62.24

184+00 185+00 186+00 187+00 188+00 189+00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

SHOUP ST.
B.O.P. 161+00
ROTARY BEACH
180+00
BUGGE BEACH
THIS VIEW
200+00
220+00
240+00
260+00
E.O.P. 284+50
MOUNTAIN PT.
TONGASS NARROWS

PLAN LEGEND

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Tue. 25/Apr/06 01:39PM robertson
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ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED
DRAWN B

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

DEPA Proj. Eng _____ Date _____
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AKSHEPARD Date 4-09

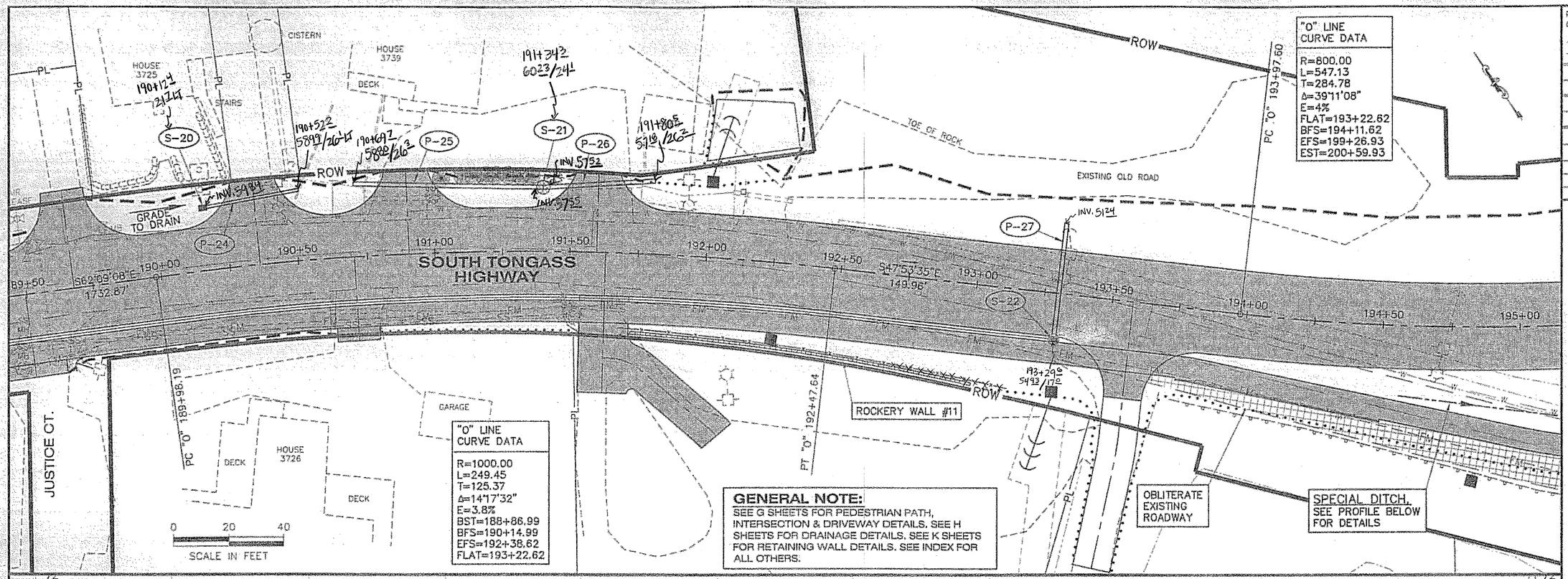
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
F6	179



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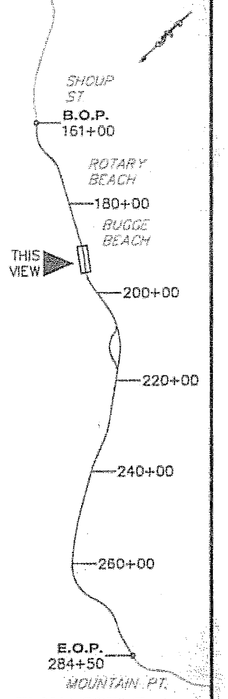
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F7	179

EXISTING GROUND

FINISHED PROFILE GRADE

P-27
52.80

-2.80%

BVCS: 197+75
BVCE: 42.99

193+00 194+00 195+00 196+00 197+00 198+00

55.9 57.33 | 53.9 56.05 | 50.4 54.76 | 57.3 53.48 | 73.5 52.19 | 91.2 50.91 | 82.6 49.62 | 70.0 48.34 | 45.8 47.05 | 42.1 45.77 | 34.5 44.49

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [illegible] Date 3-09

PATH:
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Tue, 25/Apr/06 01:40PM lrobertson

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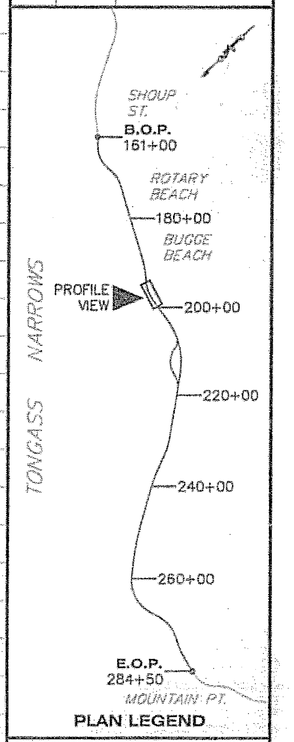
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

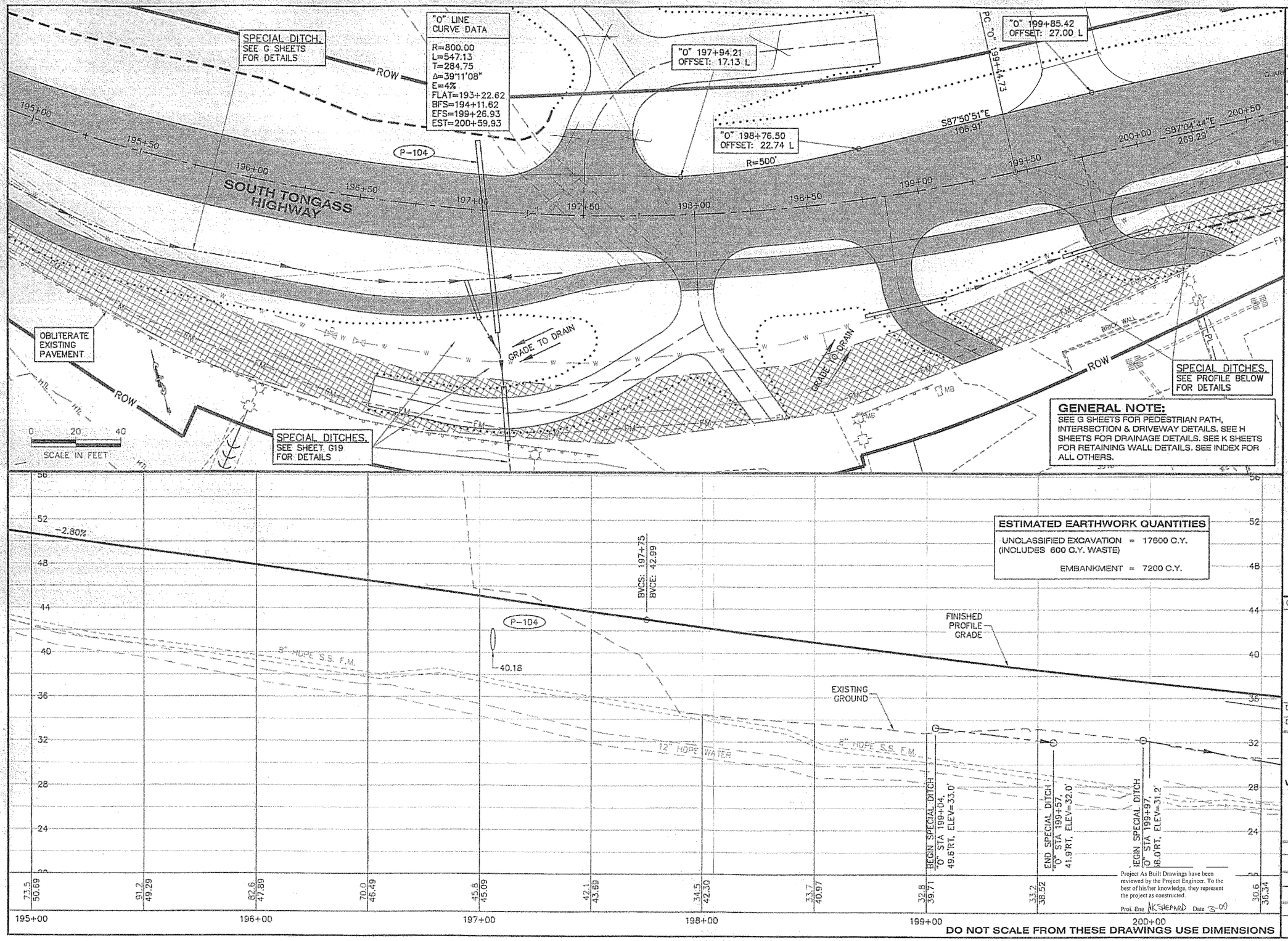
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F7a	179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L=547.13
T=284.75
Δ=39°11'08"
E=4%
FLAT=193+22.62
BFS=194+11.62
EFS=199+26.93
EST=200+59.93
SPECIAL DITCH, SEE G SHEETS FOR DETAILS
"O" 197+94.21 OFFSET: 17.13 L
"O" 198+76.50 OFFSET: 22.74 L
R=500'
"O" 199+85.42 OFFSET: 27.00 L
PC "O" 199+14.73
S87°50'51"E 106.91'
S87°04'44"E 269.29'
SOUTH TONGASS HIGHWAY
P-104
OBLITERATE EXISTING PAVEMENT
GRADE TO DRAIN
SPECIAL DITCHES, SEE SHEET G19 FOR DETAILS
SPECIAL DITCHES, SEE PROFILE BELOW FOR DETAILS
BRICK WALL
0 20 40
SCALE IN FEET
GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.
ESTIMATED EARTHWORK QUANTITIES
UNCLASSIFIED EXCAVATION = 17600 C.Y.
(INCLUDES 600 C.Y. WASTE)
EMBANKMENT = 7200 C.Y.
-2.80%
BVCS: 197+75
BVCE: 42.99
40.18
8" HDPE S.S. F.M.
12" HDPE WATER
FINISHED PROFILE GRADE
EXISTING GROUND
BEGIN SPECIAL DITCH "O" STA 199+04, 49.6'RT, ELEV=33.0'
END SPECIAL DITCH "O" STA 199+57, 41.9'RT, ELEV=32.0'
BEGIN SPECIAL DITCH "O" STA 199+97, 36.0'RT, ELEV=31.2'
73.5 50.69
91.2 49.29
82.6 47.89
70.0 46.49
45.8 45.09
42.1 43.69
34.5 42.30
33.7 40.97
32.8 39.71
33.2 38.52
30.6 36.34
195+00
196+00
197+00
198+00
199+00
200+00
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Engr AK SHEPARD Date 3-09
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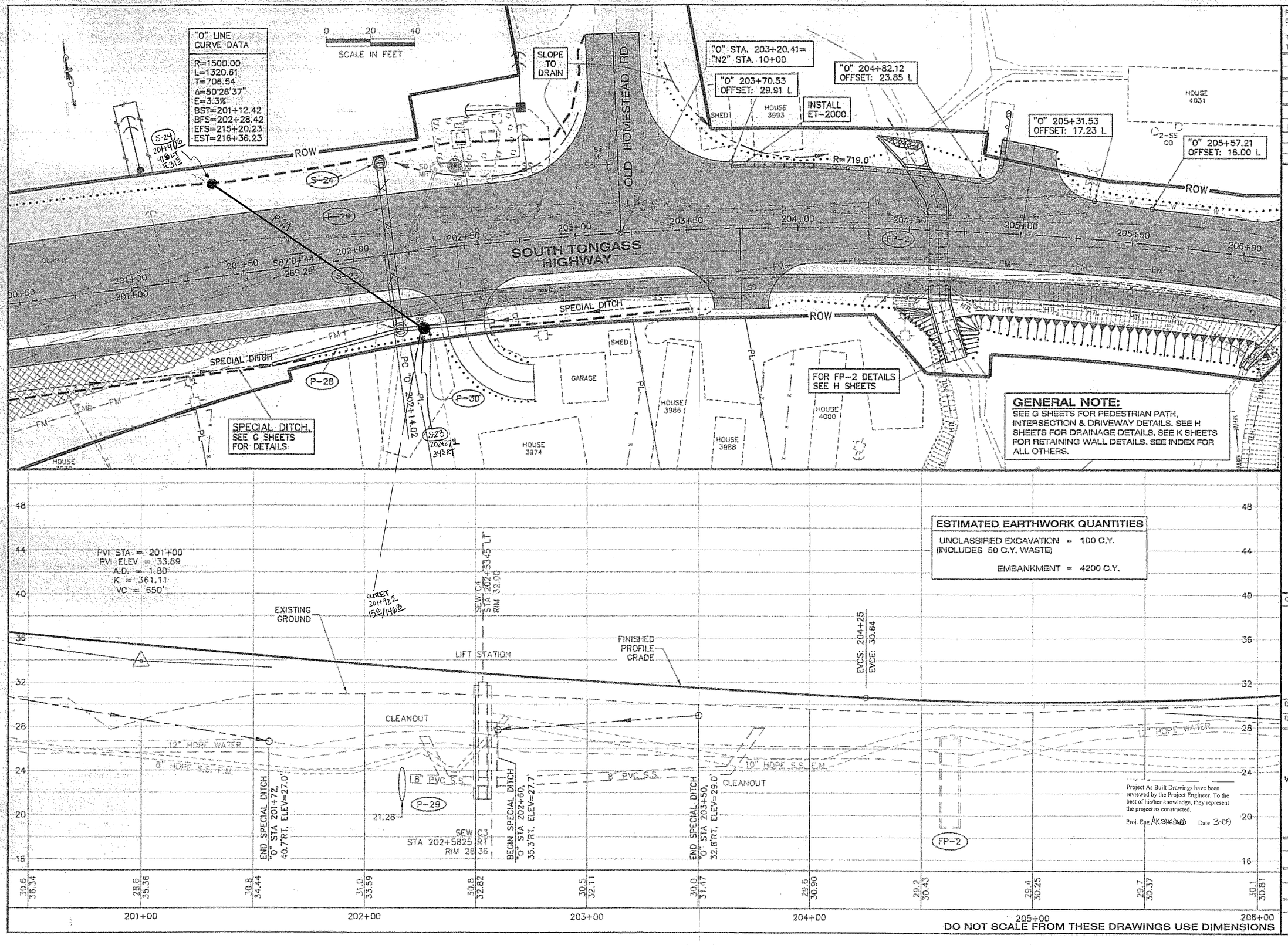
Tue, 25/Apr/06 01:40PM lrobertson
TAB: F8
ADDENDUM NUMBER
ATTACHMENT NUMBER
RECORD OF REVISIONS
No. DATE DESCRIPTION
SHOUP ST.
B.O.P. 161+00
ROTARY BEACH
180+00
BUGGE BEACH
THIS VIEW
200+00
220+00
240+00
260+00
E.O.P. 284+50
MOUNTAIN PT.
TONGASS NARROWS
PLAN LEGEND
CHECKED BY: P. CARROLL
STATE OF ALASKA
49th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71870
PLAN & PROFILE
PROJECT DESIGNATION
MGS-STP-0902(20)
STATE ALASKA
YEAR 2006
SHEET NUMBER F8
TOTAL SHEETS 179



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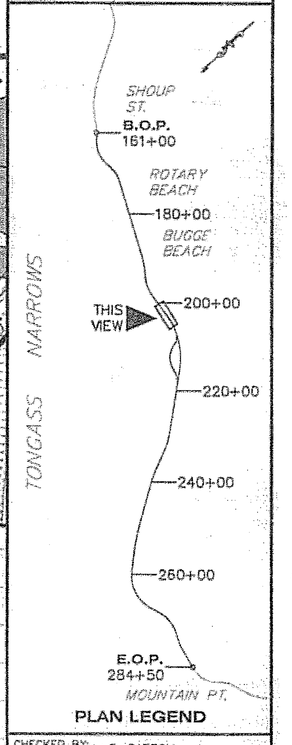
ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th Chad J. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

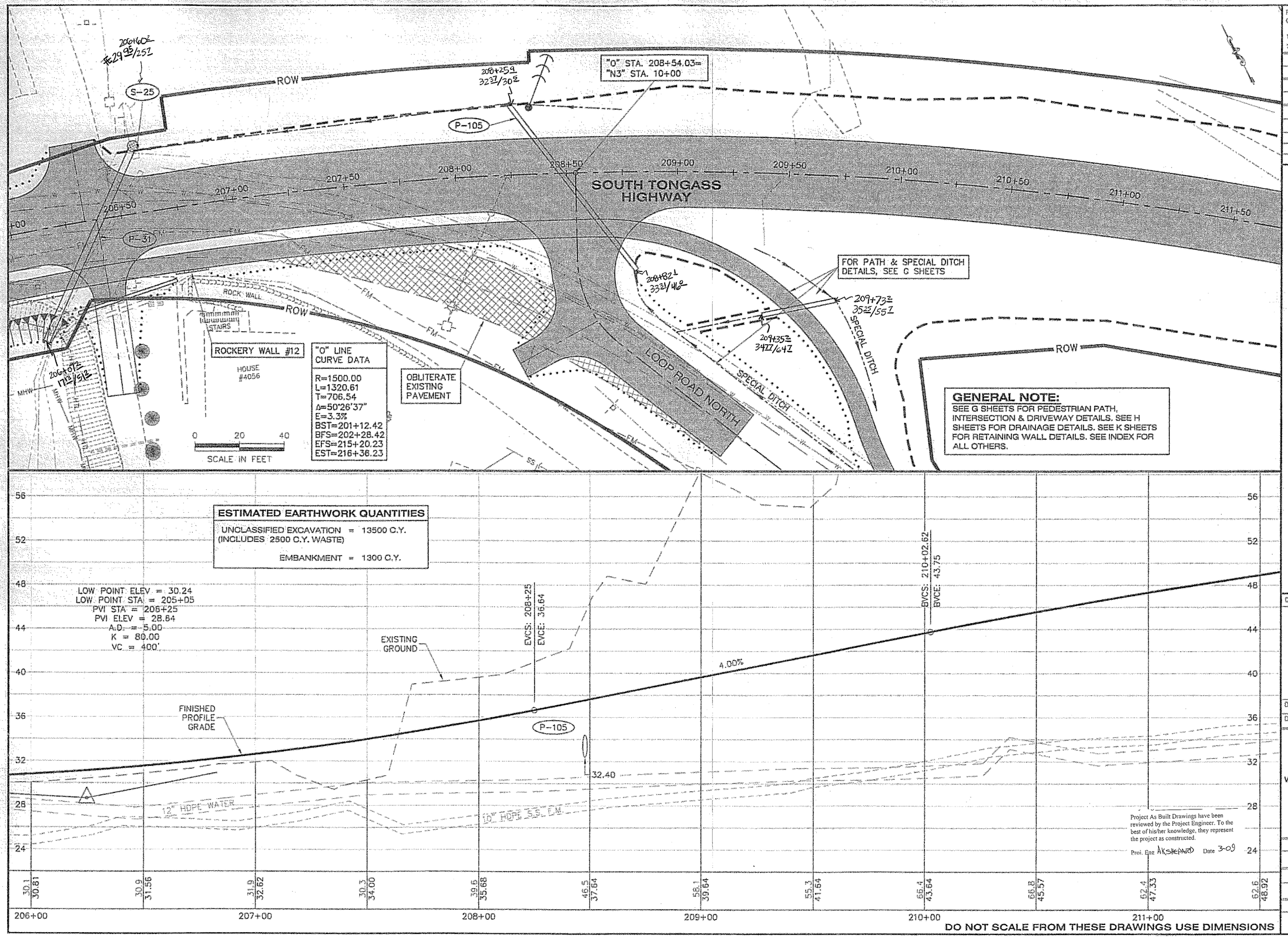
DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F9	179



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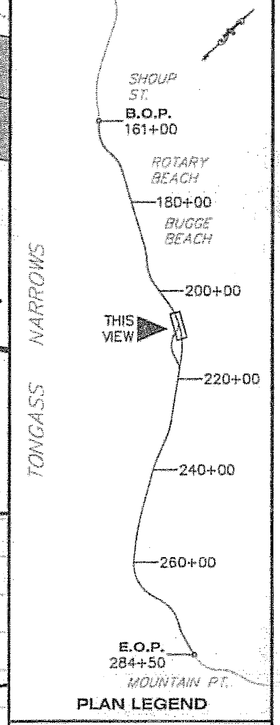
ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S/M.L.

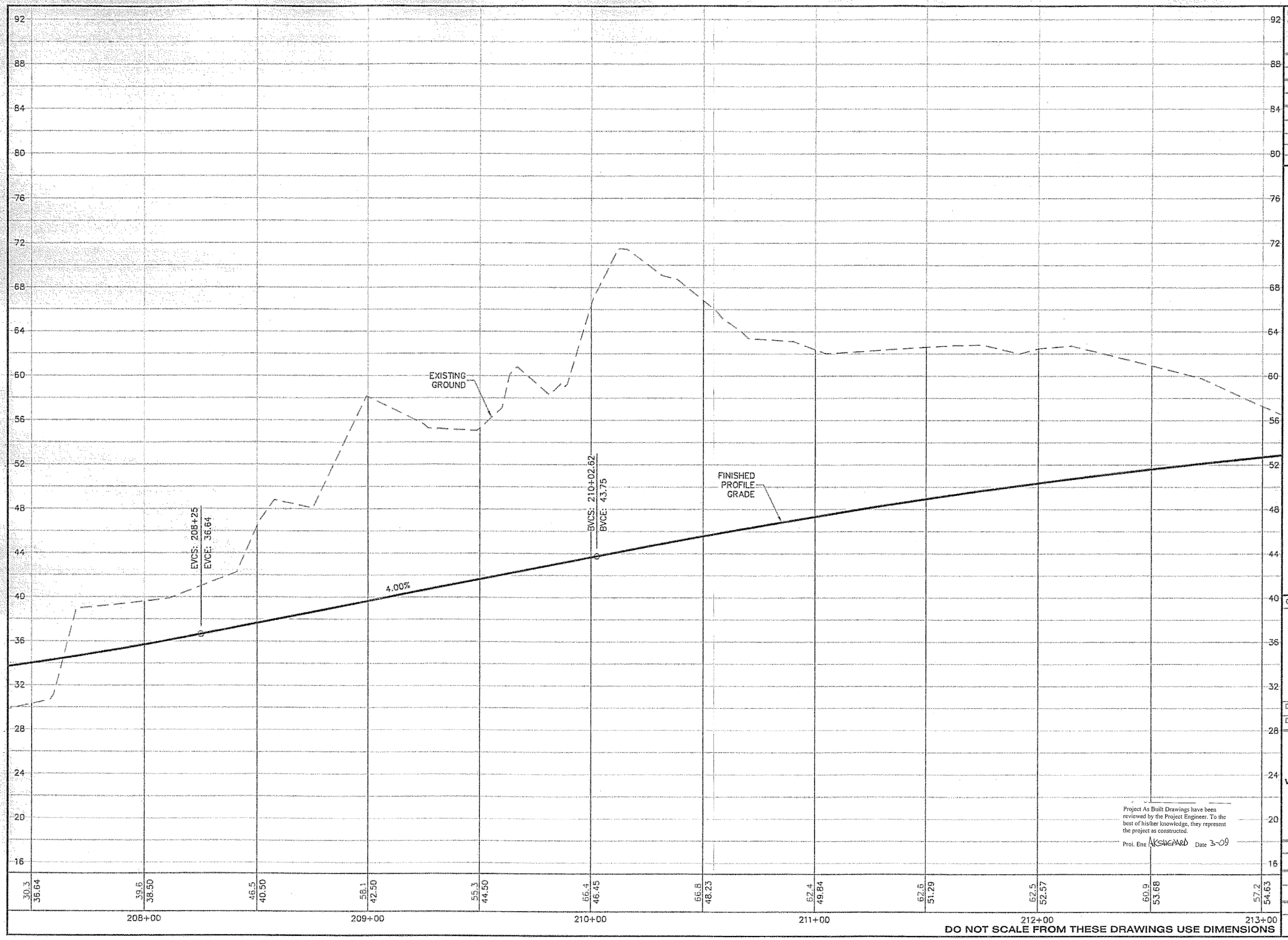
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AKSHEPARD Date 3-09

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F10	179



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. AKSHEARD Date 3-09

PATH: C:\Documents and Settings\lrobertson\Local Settir

Tue, 25/Apr/06 01:40PM lrobertson

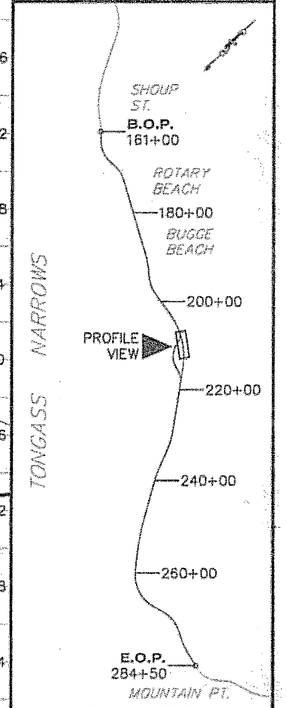
TAB: F10a

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

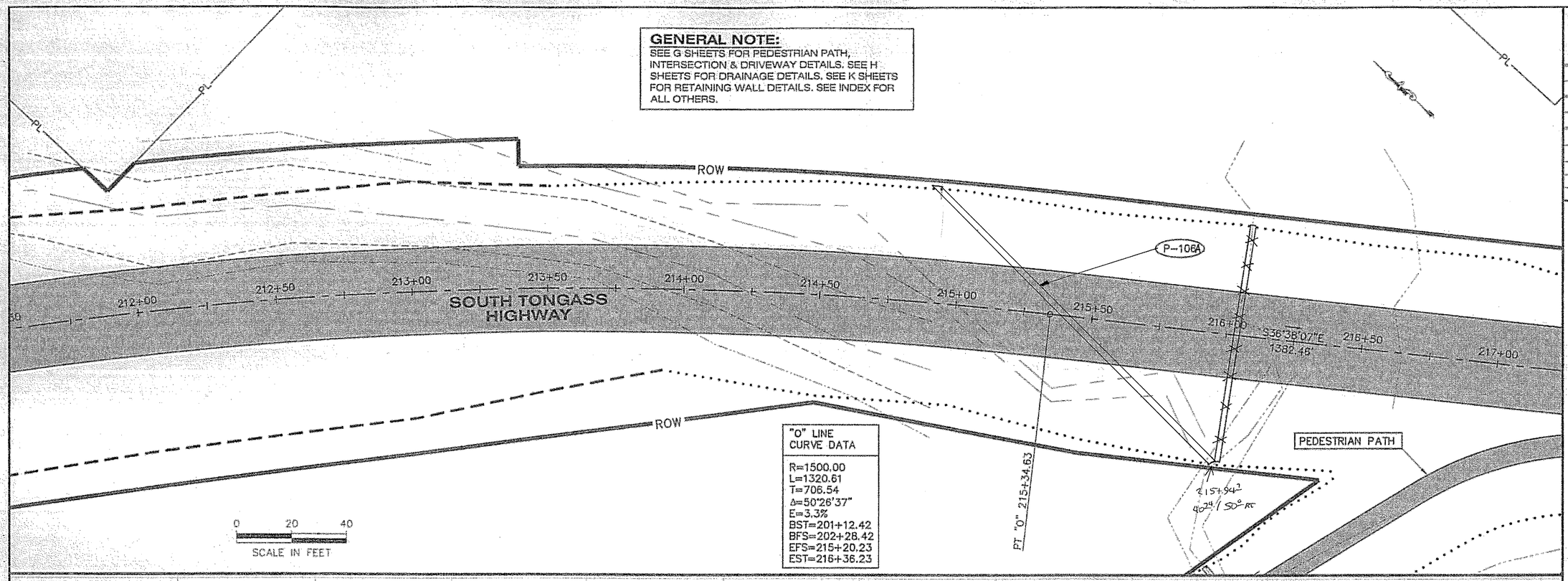
PLAN & PROFILE

PROJECT DESIGNATION

MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F10a	179

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.



"O" LINE CURVE DATA

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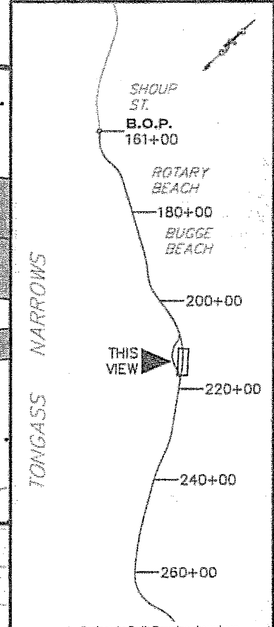

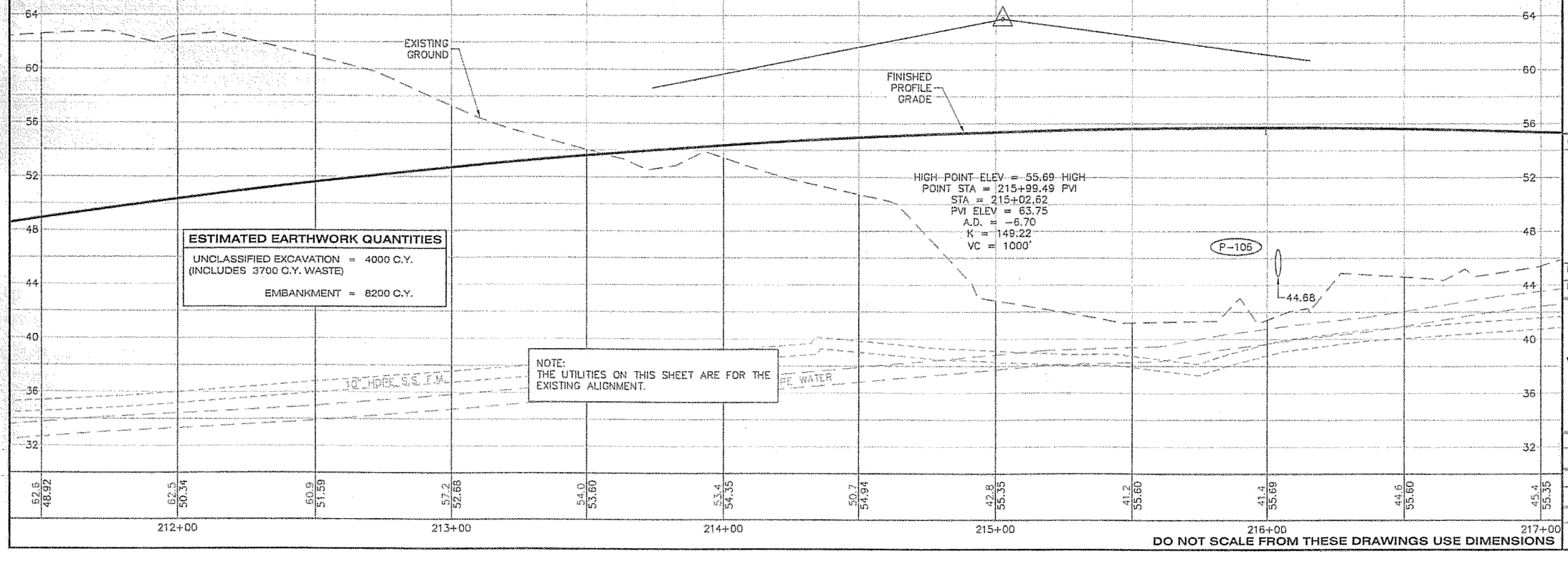

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 3700 C.Y. WASTE)	= 4000 C.Y.
EMBANKMENT	= 8200 C.Y.

NOTE:
THE UTILITIES ON THIS SHEET ARE FOR THE EXISTING ALIGNMENT.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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Tue, 25/Apr/06 01:41PM lrobertson
TAB: F11

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [illegible] Date 4-06

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S/M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

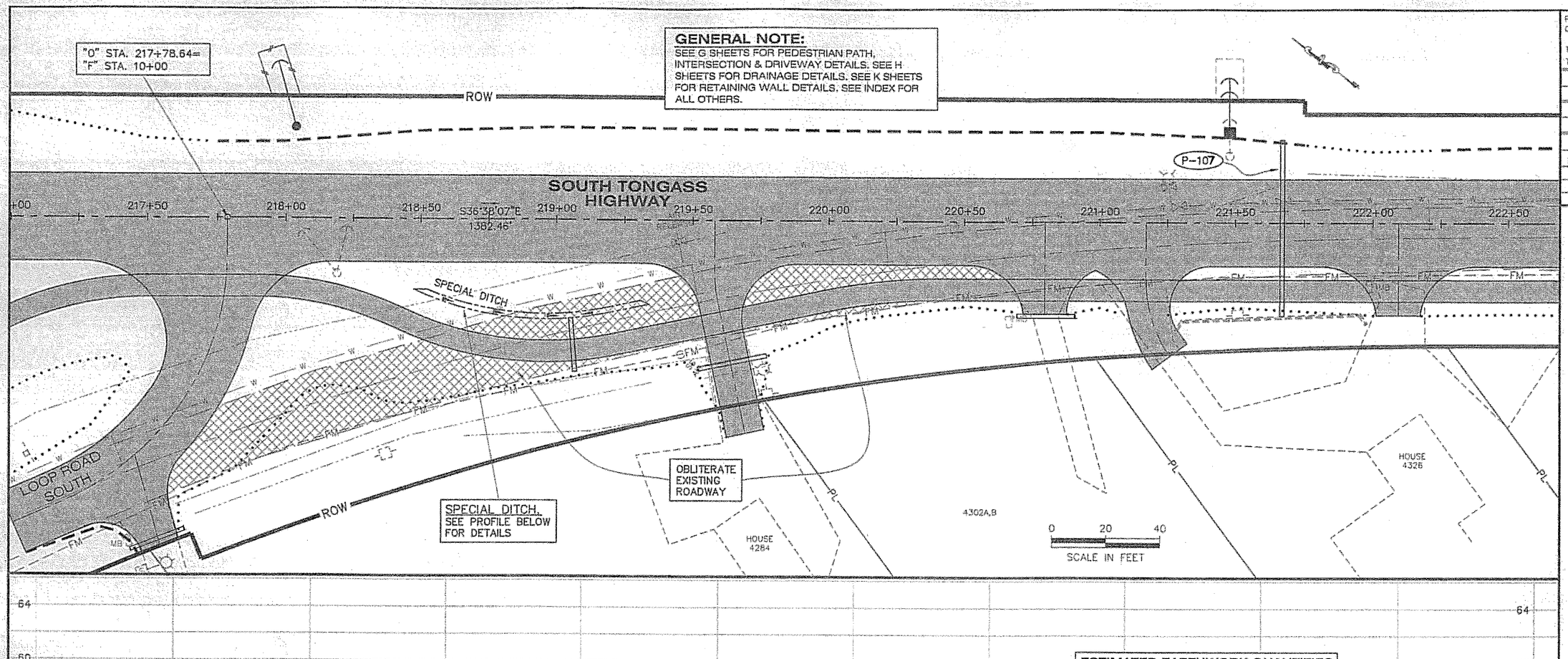
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

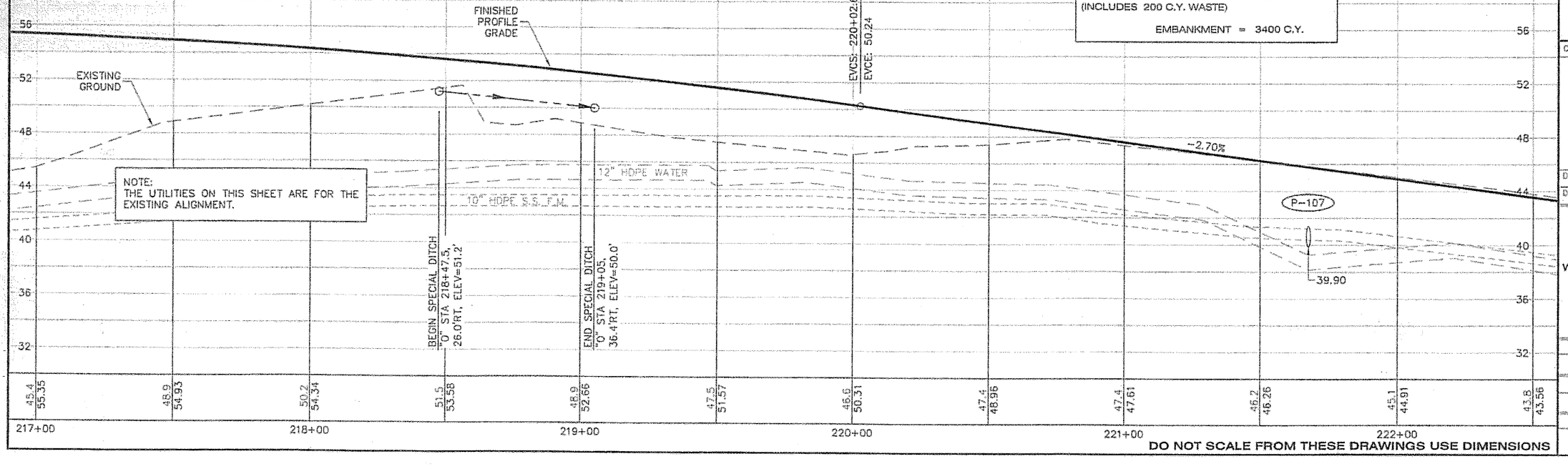
PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F11	179

"0" STA. 217+78.64=
"F" STA. 10+00

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.





NOTE:
THE UTILITIES ON THIS SHEET ARE FOR THE EXISTING ALIGNMENT.

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 200 C.Y. WASTE)	= 500 C.Y.
EMBANKMENT	= 3400 C.Y.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

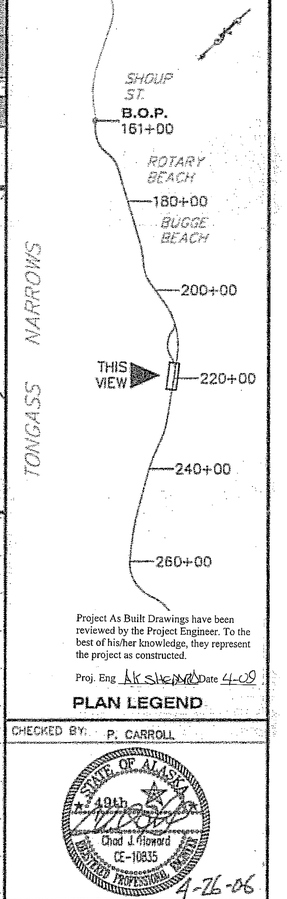
PATH: C:\Documents and Settings\lrobertson\Local Settir
Tue, 25/Apr/06 01:41PM lrobertson
TAB: F12

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. [signature] Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

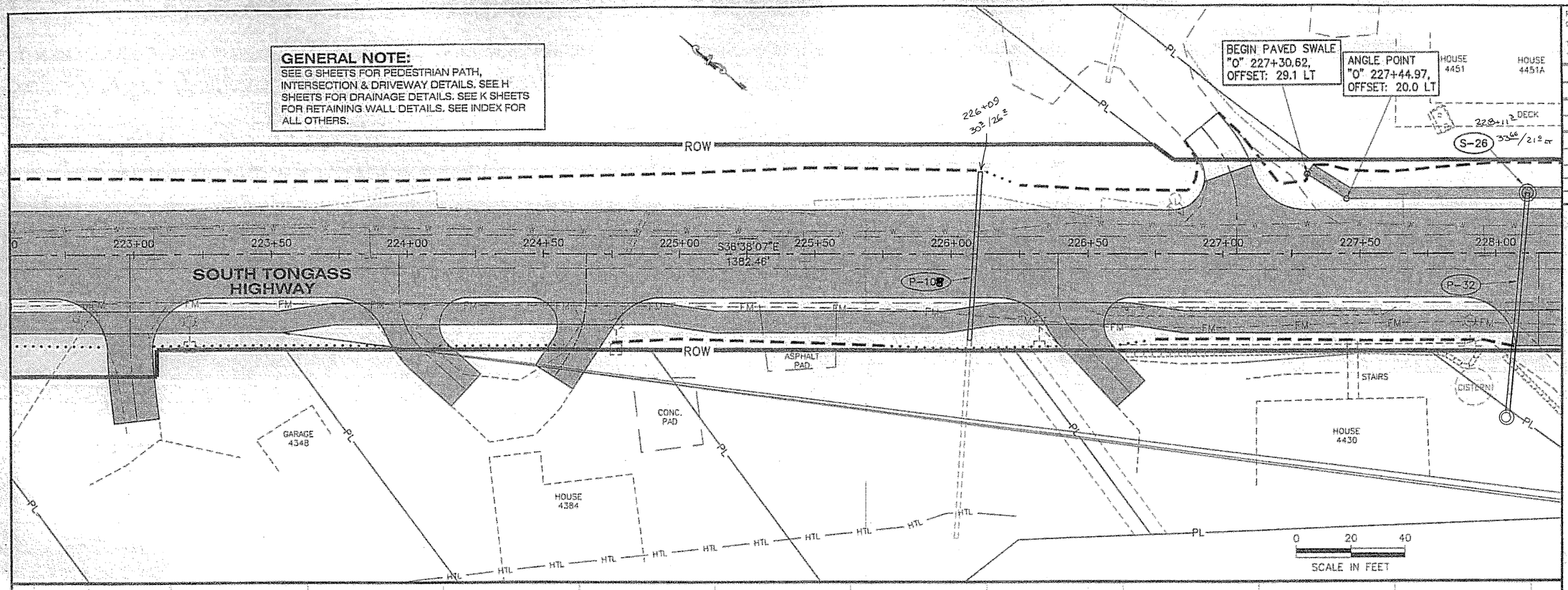
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

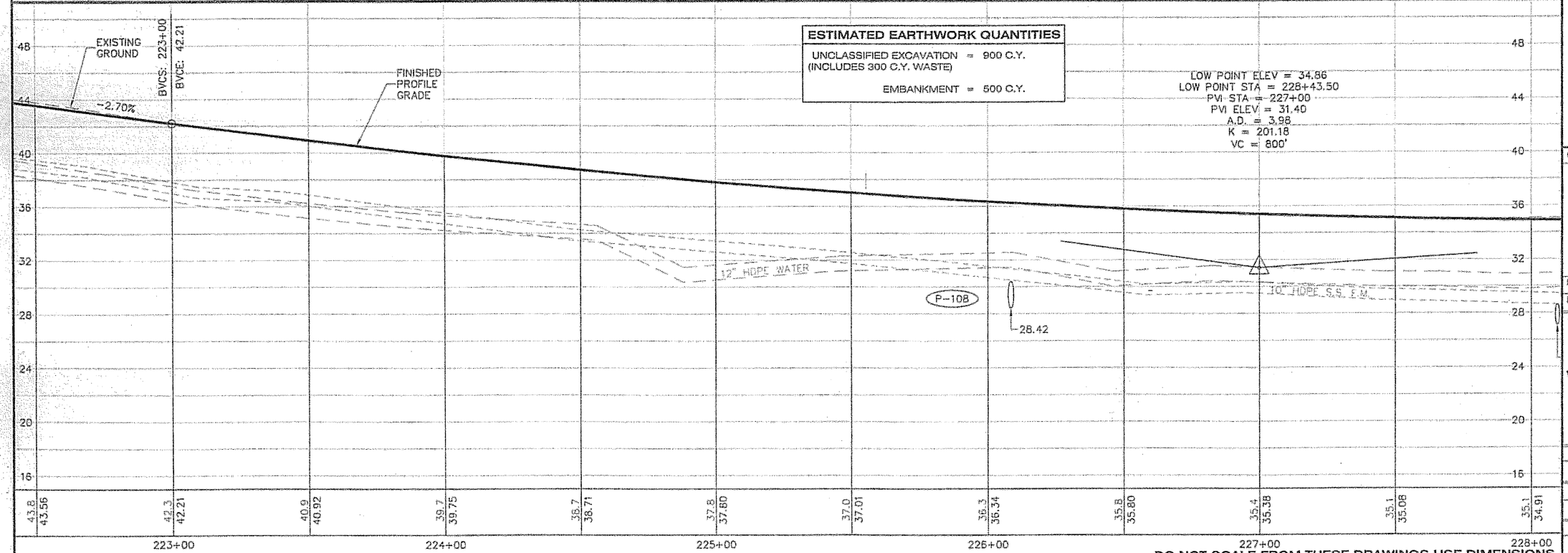
PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F12	179

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.





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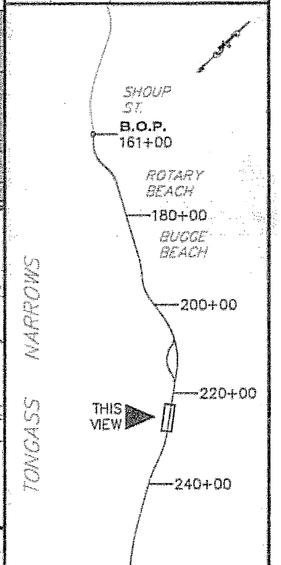
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date _____

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-24-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S/M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F13	179

END PAVED SWALE
"0" 229+17.08
OFFSET: 20.0 LT

HOUSE 4451A
DECK
ROW
S-27
SOUTH TONGASS HIGHWAY
P-33
228+50 S36°38'07"E 1382.46'
229+00 229+50 230+00 230+50 231+00 231+50 232+00 232+50 233+00 233+50
S21°05'46"E 446.67'
INSTALL ET-2000
CARPORT W/ WOOD DECK
PORCH
HOUSE 4492
HOUSE 4468
DECK
PC "0" 229+17.09
SLOPE STABILIZATION
HTL
ROW
PT "0" 233+23.90
PL
FM
MB

0 20 40
SCALE IN FEET

"0" LINE CURVE DATA
R=1500.00
L=406.81
T=204.66
Δ=15°32'20"
E=3.3%
BST=228+14.69
BFS=229+31.69
EFS=233+09.30
EST=234+26.30

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 500 C.Y. WASTE)	= 2100 C.Y.
EMBANKMENT	= 2300 C.Y.

FINISHED PROFILE GRADE
EXISTING GROUND
BVCS: 231+00 BVCE: 36.50
EVCS: 231+00 EVCE: 36.50
12" HDPE WATER
16" HDPE S.S. F.M.
P-32
27.12
P-33
30.80

48 44 40 36 32 28 24 20 16

| | | |

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

"O" LINE CURVE DATA
R=1500.00
L=235.50
T=117.99
Δ=08°59'44"
E=3.3%
BST=236+68.17
BFS=237+85.17
EFS=239+91.47
EST=241+08.47

ROW
PC "O" 237+70.57
P-109 (~~109~~)
1" SERVICE SADDLE
STA: 234+29.36 OFFSET: 21.000 R
STA: 235+25.24 OFFSET: 18.000 R
234+00 234+50 235+00 235+50 S21°05'46"E 446.67 236+00 236+50 237+00 237+50 238+00 238+50 239+00
SOUTH TONGASS HIGHWAY
ROW
INSTALL GUARDRAIL DOWNSTREAM END ANCHOR
DECK
GREEN HOUSE
WOOD PLATFORM
HOUSE 4502
MSE-WALL #13
CONCRETE DAHL WALL
STA: 235+80.24 OFFSET: 21.000-R
STA: 237+05.01 OFFSET: 20.996-R
STA: 237+24.99 OFFSET: 18.000 R
STAIRS
STA: 237+69.14 OFFSET: 18.000 R
HOUSE 4634
STA: 237+88.89 OFFSET: 21.001 R
CHAIN LINK FENCE (DISC. ADJ.)
0 20 40
SCALE IN FEET

HIGH POINT ELEV = 38.97
HIGH POINT STA = 234+87.77
PVI STA = 235+00
PVI ELEV = 41.60
A.D. = -2.63
K = 304.13
VC = 800'
EXISTING GROUND
FINISHED PROFILE GRADE
12" HDPE WATER
JOHDER S.S. F.M.
P-109
31.49
EVCS: 239+00 EVCE: 36.18

ESTIMATED EARTHWORK QUANTITIES
UNCLASSIFIED EXCAVATION = 5200 C.Y.
(INCLUDES 300 C.Y. WASTE)
EMBANKMENT = 400 C.Y.

| | | |

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Tue, 25/Apr/06 01:42PM robertson
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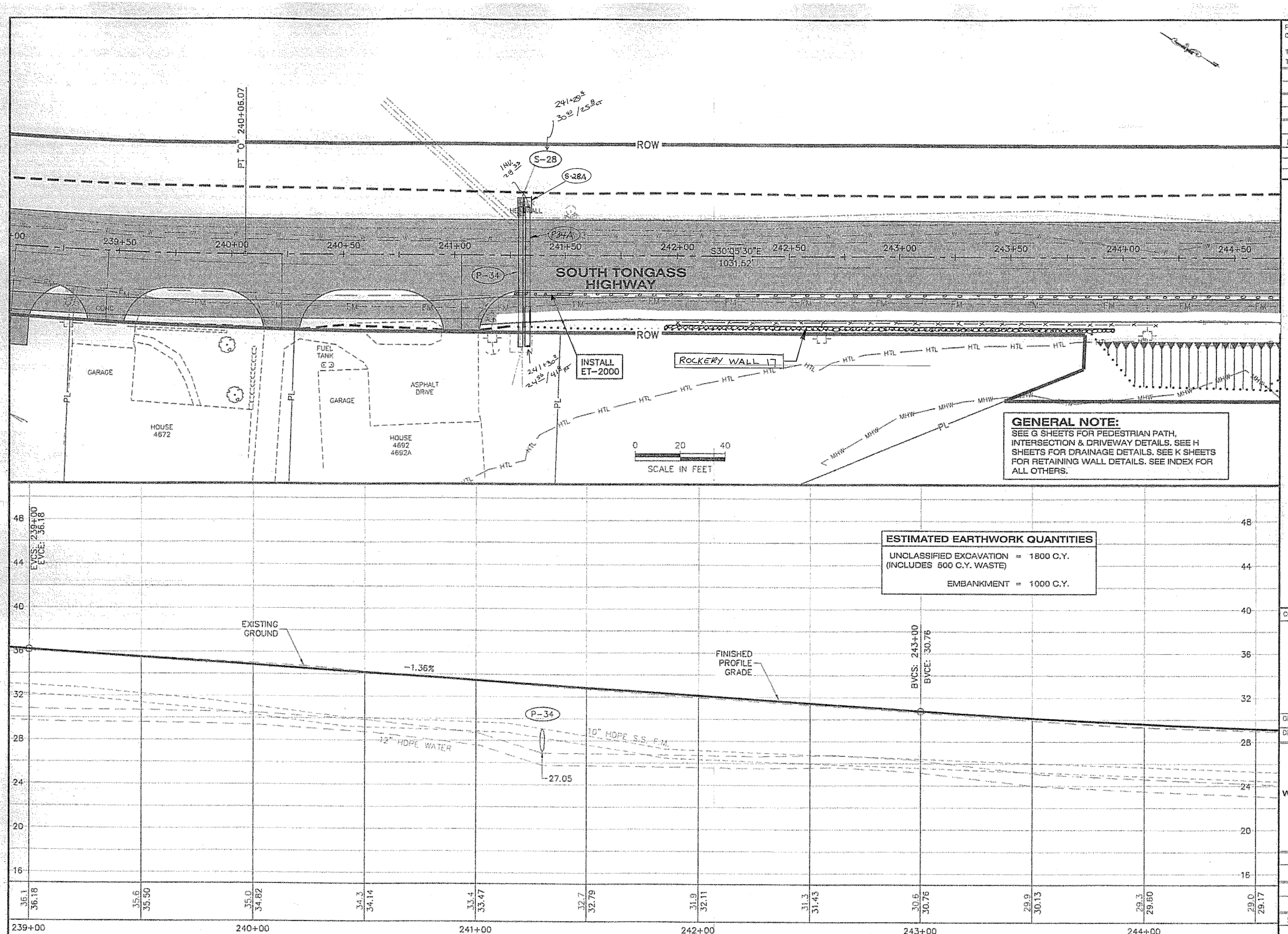
ADDENDUM NUMBER

ATTACHMENT NUMBER

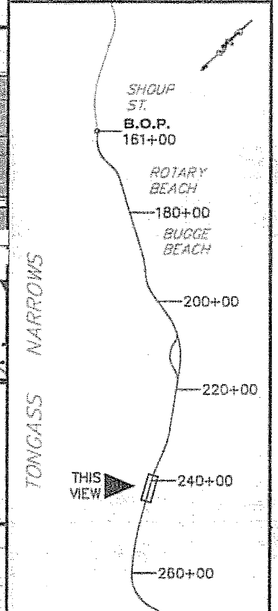
RECORD OF REVISIONS

No.	DATE	DESCRIPTION



ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 500 C.Y. WASTE)	= 1800 C.Y.
EMBANKMENT	= 1000 C.Y.



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION
PROJECT #71670

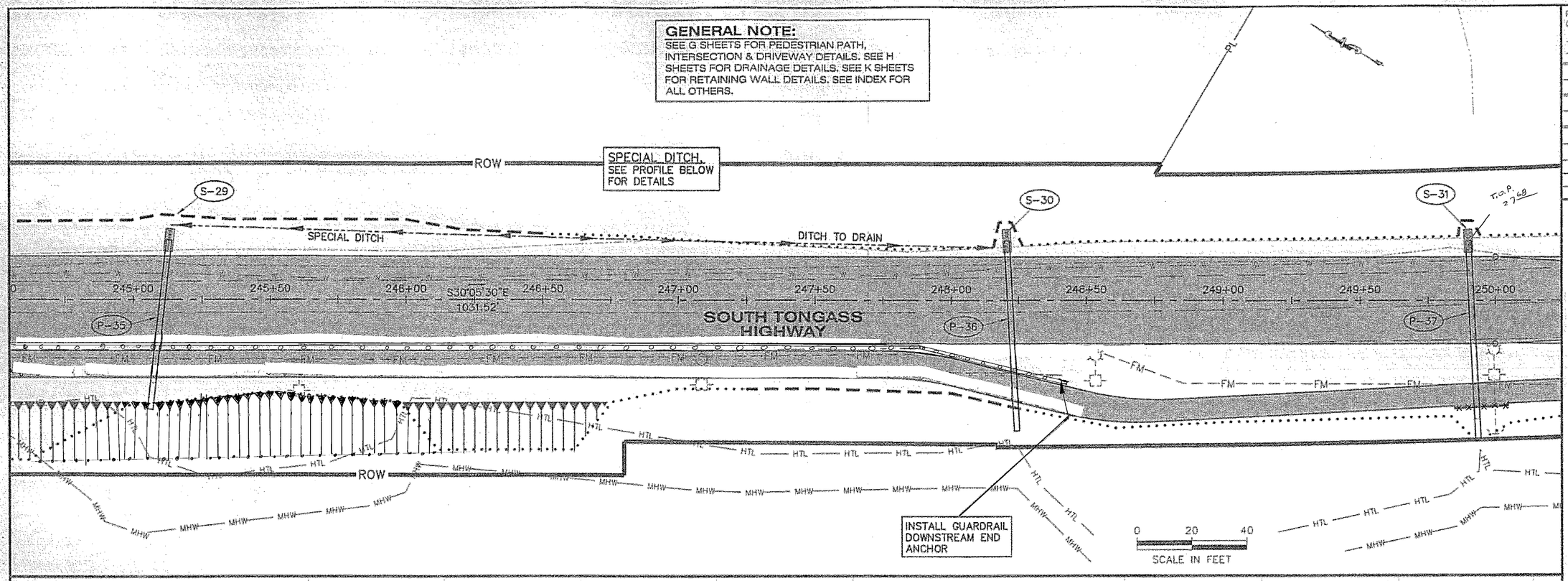
PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F16	179

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

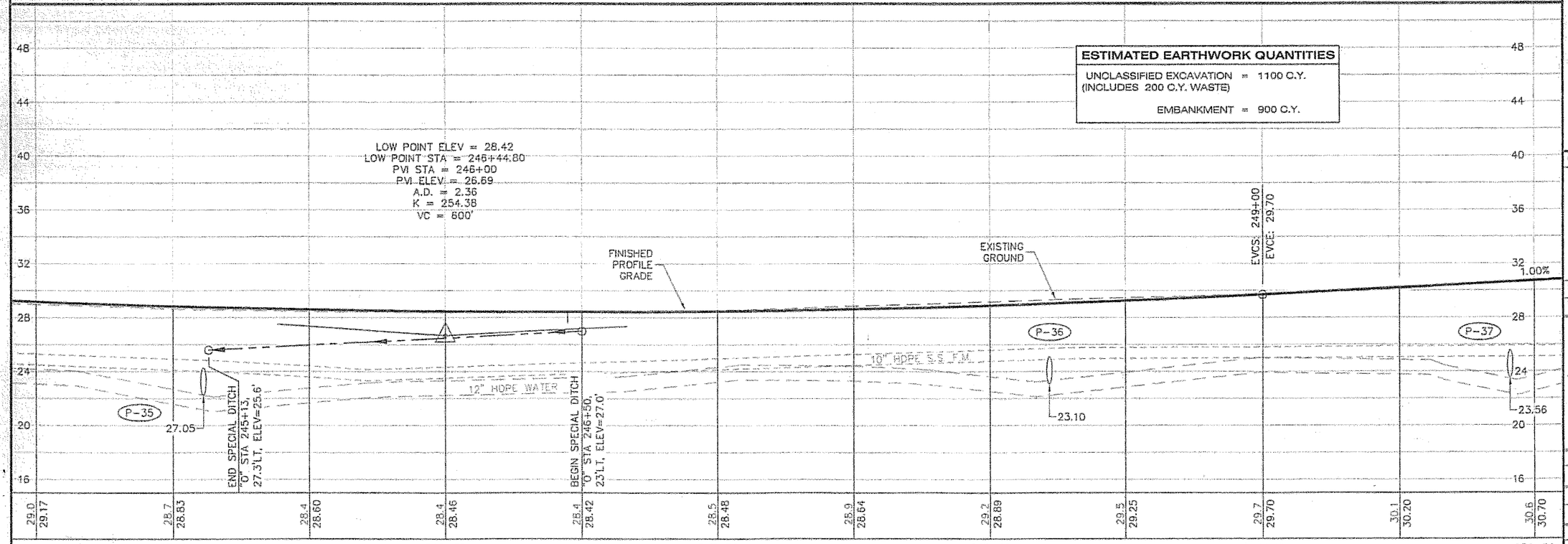
GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.



ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 1100 C.Y.
(INCLUDES 200 C.Y. WASTE)

EMBANKMENT = 900 C.Y.



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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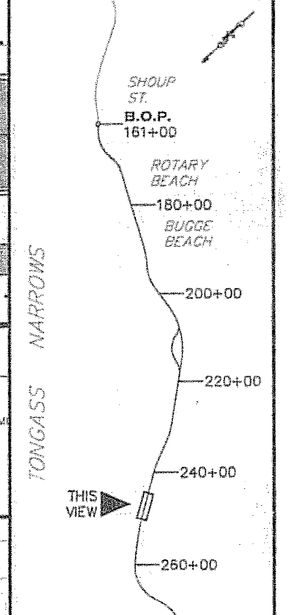
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng A K SHEPARD Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th Chad A. Howard CE-10835 REGISTERED PROFESSIONAL ENGINEER 4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F17	179

BEGIN TRANSITION
STA: 250+00.00
OFFSET: 16' LT & RT

PC "O" 250+37.58

END TRANSITION
MATCH EXISTING
STA: 250+50.00
OFFSET: 13' LT & RT

FUTURE "O" LINE
CURVE DATA

R=2500.00
L=436.71
T=218.91
Δ=10°00'31"
E=2.6%
BST=249+47.18
BFS=250+49.18
EFS=254+62.70
EST=255+64.70

PT "O" 254+74.30

ROW

SOUTH TONGASS HIGHWAY

FUTURE EDGE OF PAVEMENT

INV. 27.2

234

P-38

ROW

PL

END ROAD WORK
P.O.C. "O" STA. 250+50
N 321,717.25
E 664,793.00
SAWCUT & MATCH
EXISTING PAVEMENT

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

0 20 40
SCALE IN FEET

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 100 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 100 C.Y.

BVCS: 250+17.33
BVCE: 30.88

PVI STA = 251+17.33
PVI ELEV = 31.88
A.D. = -0.30
K = 677.20
VC = 200'

EVCS: 252+17.33
EVCE: 32.59

1.00%

0.71%

FINISHED PROFILE GRADE

EXISTING GROUND

12" HDPE WATER

10" HDPE S.S. F.M.

STA 254+46.31 RT
INVERT 28.09

10" HDPE S.S. FORCE MAIN
AS-BUILT INFORMATION
NOT AVAILABLE

23.56

30.6 30.70 | 31.2 31.20 | 31.7 31.66 | 32.1 32.08 | 32.5 32.46 | 32.9 32.82 | 33.3 33.17 | 33.6 33.53 | 33.9 33.88 | 34.2 34.23 | 34.5 34.59 | 34.8 34.94

250+00 251+00 252+00 253+00 254+00 255+00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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Tue, 25/Apr/06 01:42PM lrobertson
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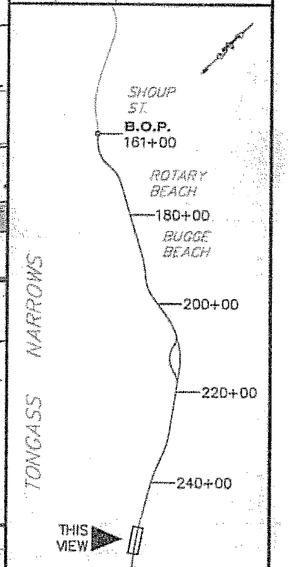
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. [signature] Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad U. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S/M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F18	179

GENERAL NOTE:
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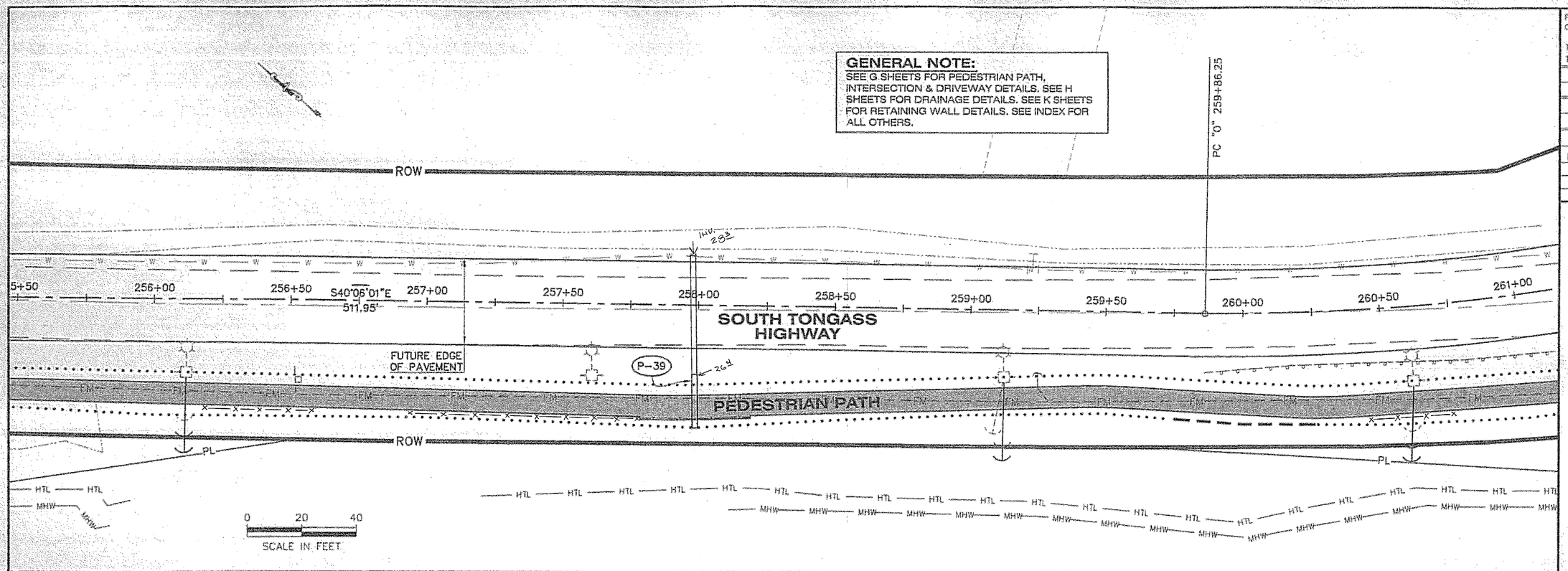

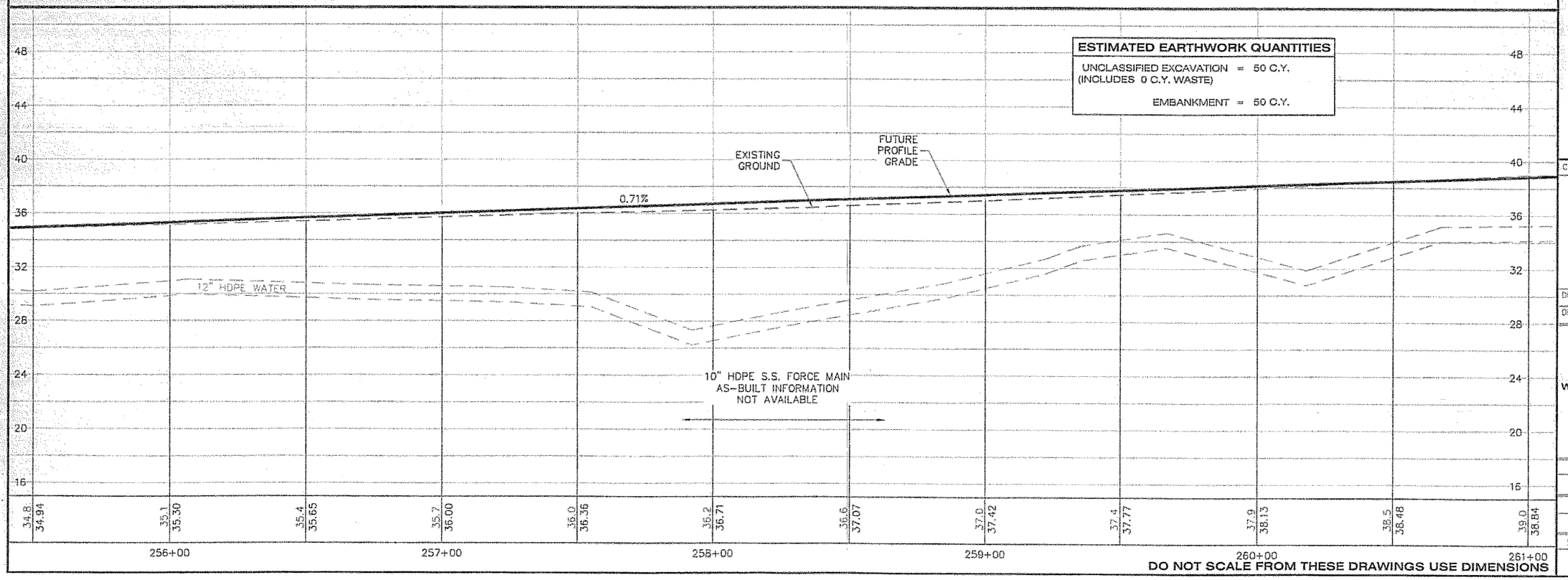

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	= 50 C.Y.
EMBANKMENT	= 50 C.Y.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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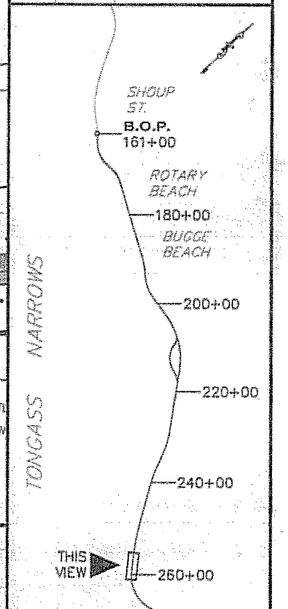
Tue, 25/Apr/06 01:42PM lrobertson
TAB: F19

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng Aksuepard Date 4-60

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S/M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

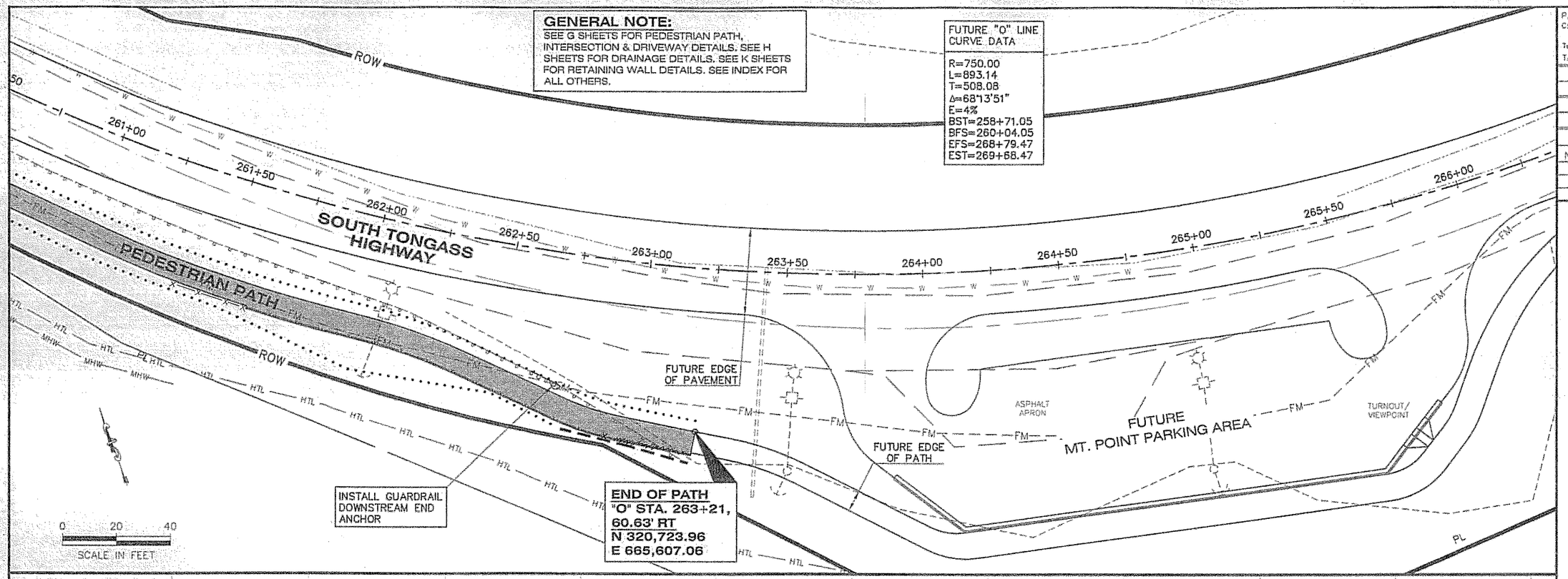
PROJECT DESIGNATION
MGS-STP-0902(20)

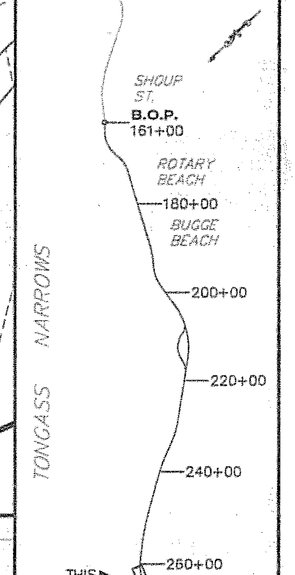
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F19	179

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

FUTURE "O" LINE CURVE DATA

R=750.00
L=893.14
T=508.08
Δ=68°13'51"
E=4%
BST=258+71.05
BFS=260+04.05
EFS=268+79.47
EST=269+68.47

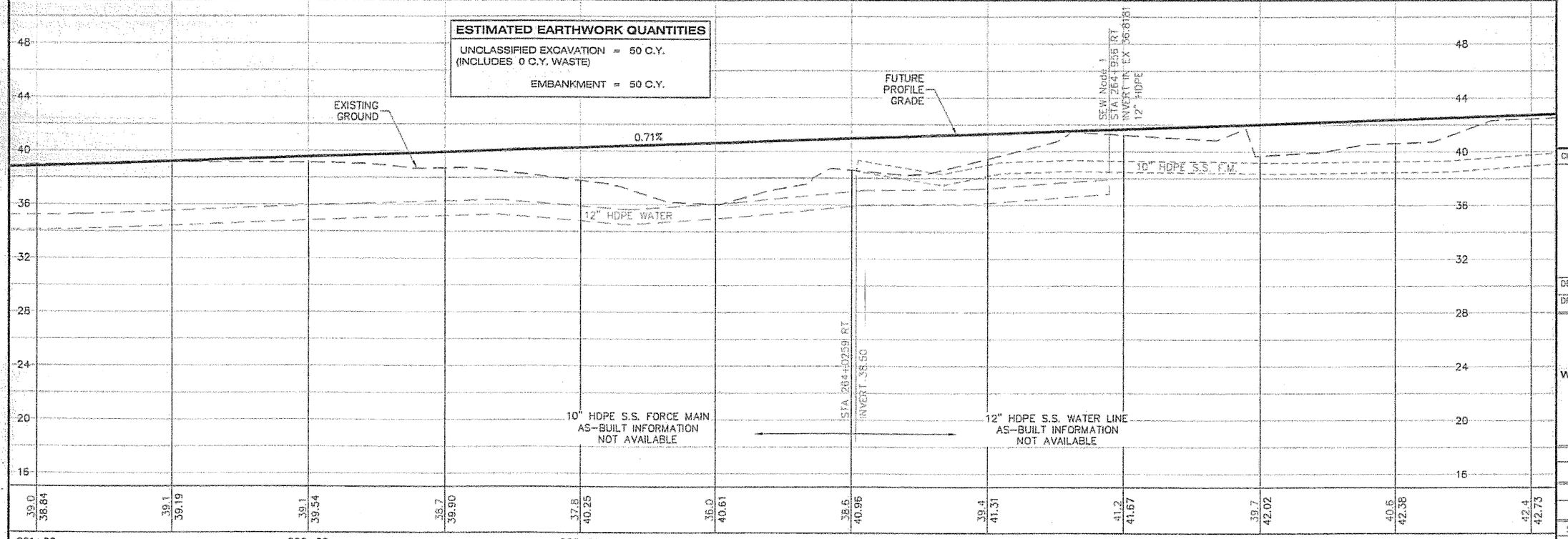




ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 50 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 50 C.Y.



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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Tue. 25/Apr/06 01:42PM robertson
TAB: F20

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSKEAND Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-16-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S/M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F20	179

GENERAL NOTE:
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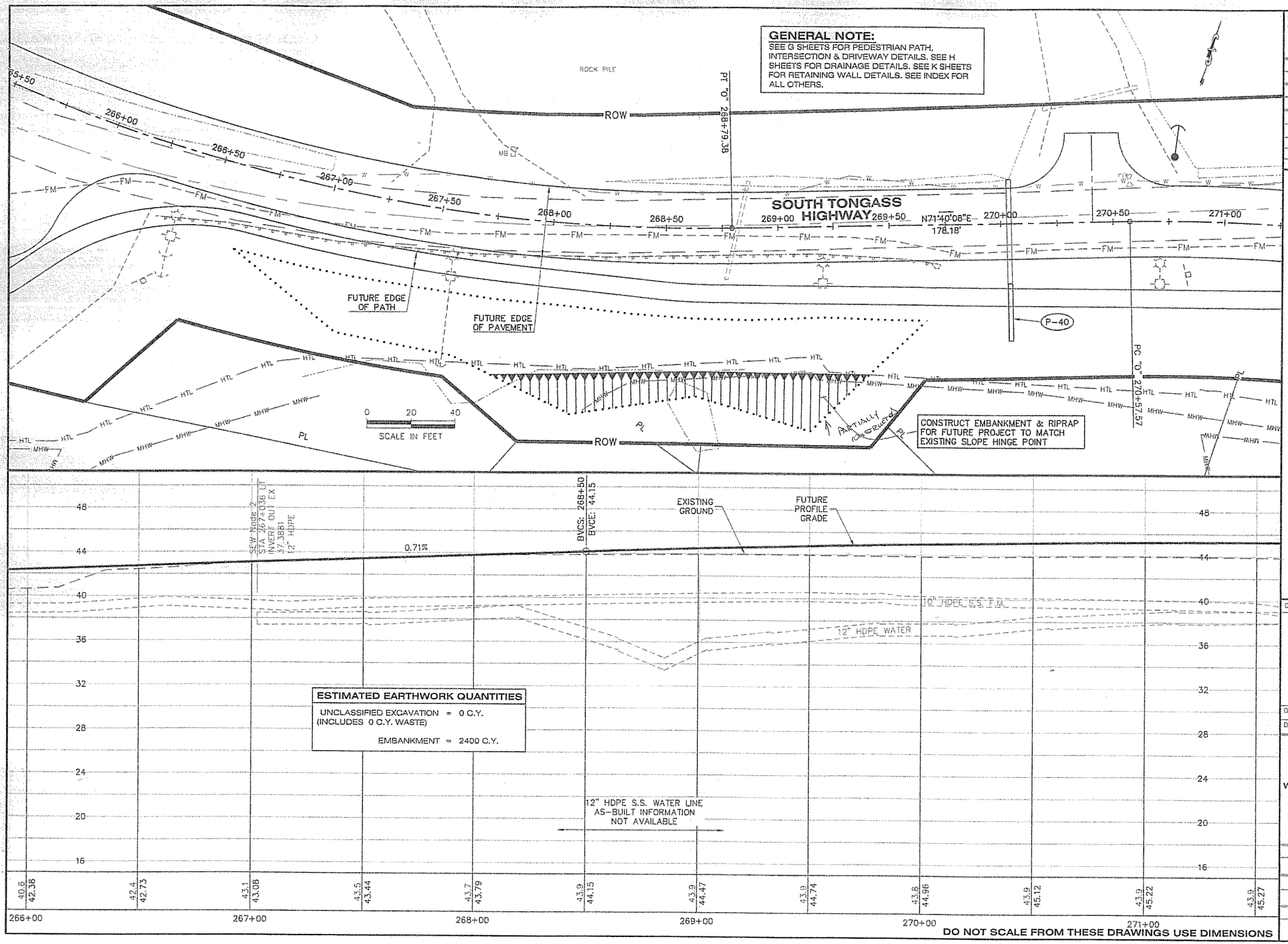

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 2400 C.Y.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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TAB: F21

ADDENDUM NUMBER

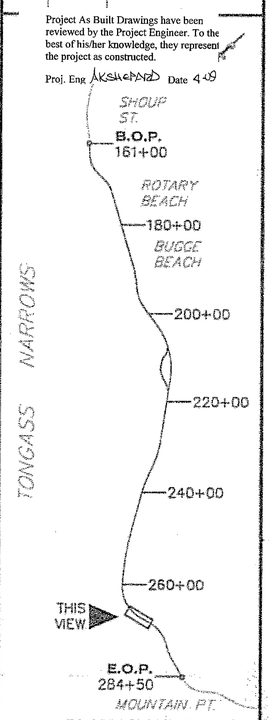
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-26-06



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

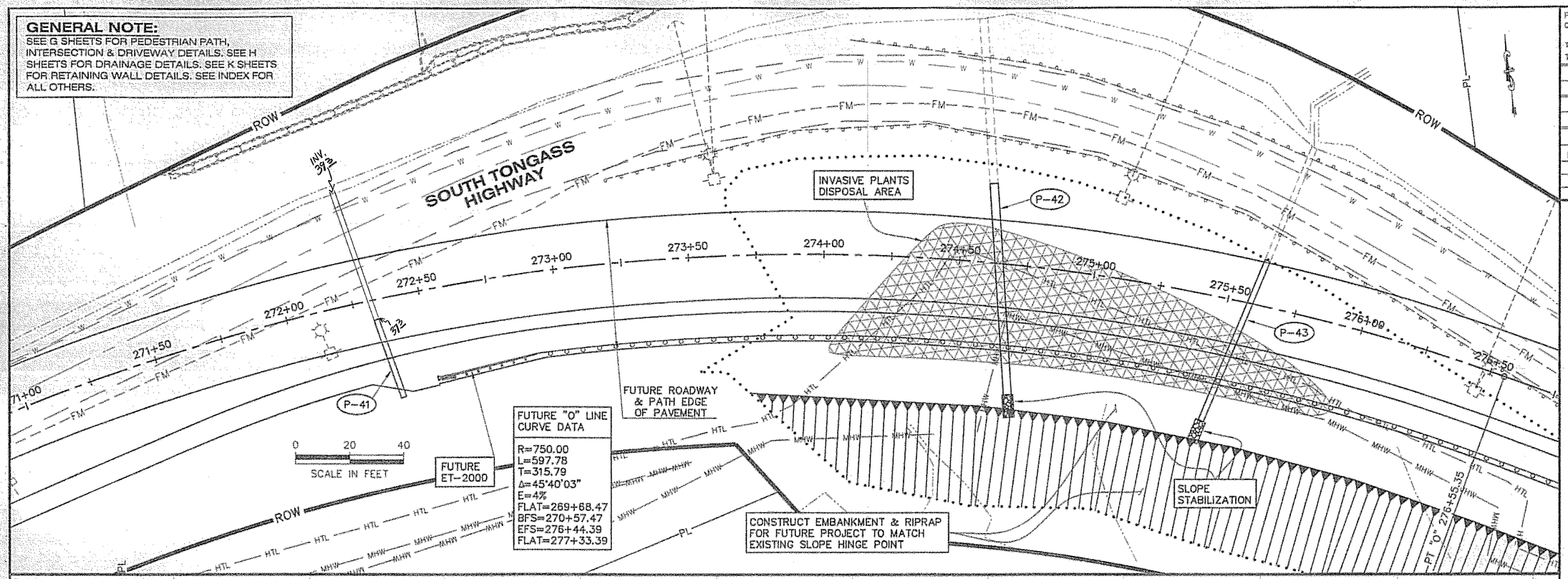
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

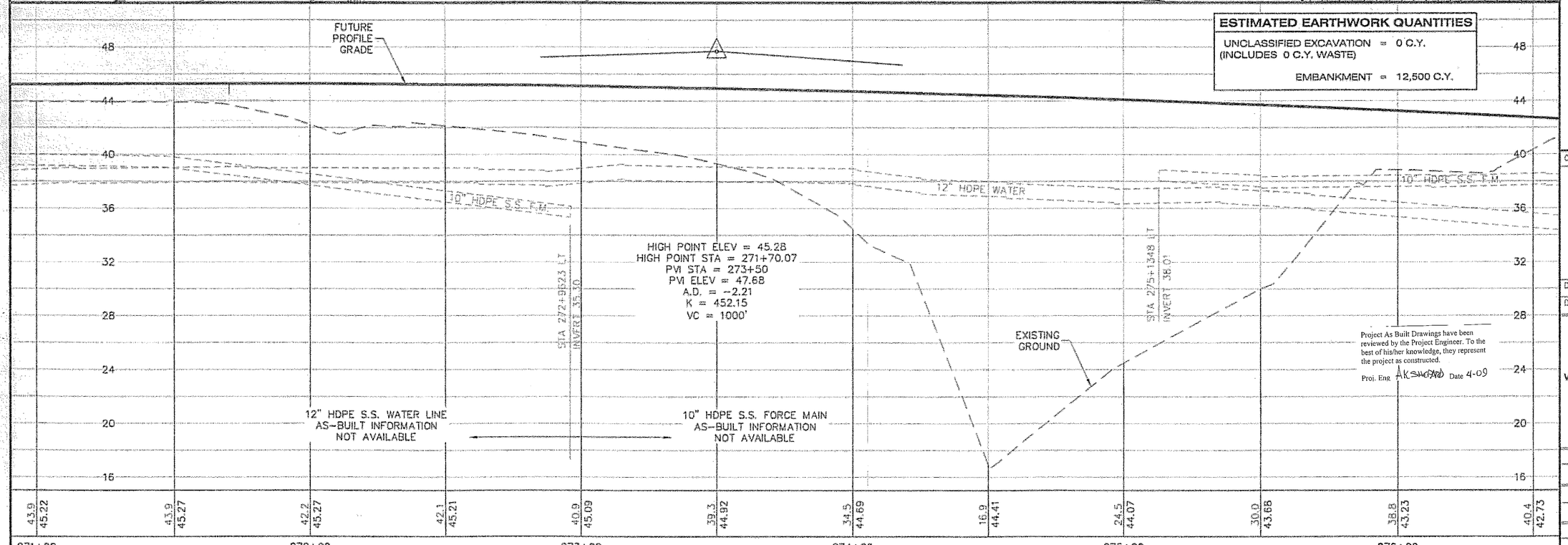
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F21	179

GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.





ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	0 C.Y.
EMBANKMENT	12,500 C.Y.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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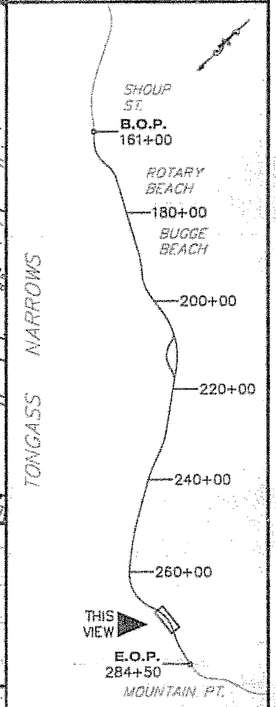
Tue, 25/Apr/06 01:43PM lrobertson
TAB: F22

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad O. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R.S./M.L.

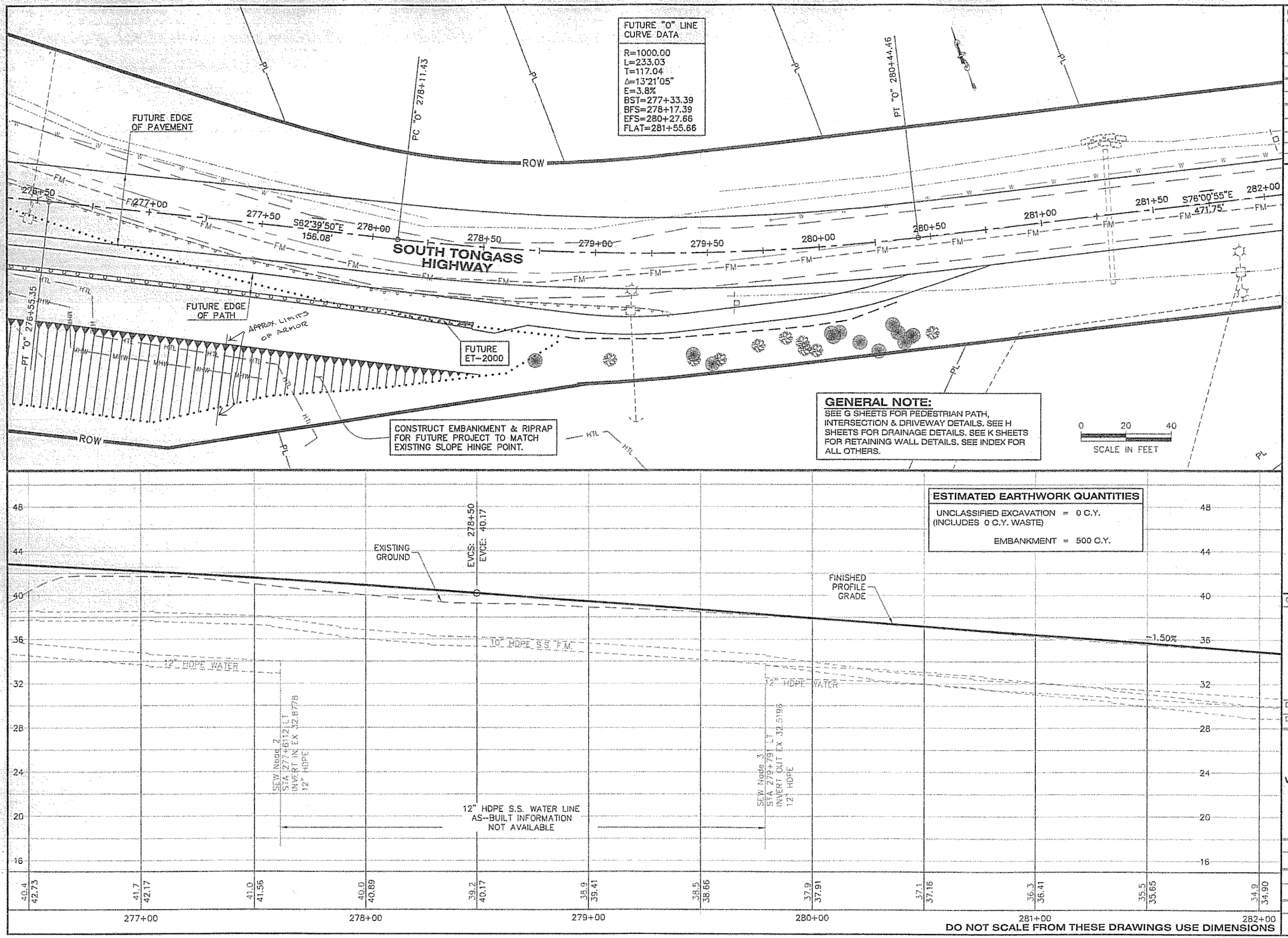
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AK Shepard Date 4-09

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F22	179



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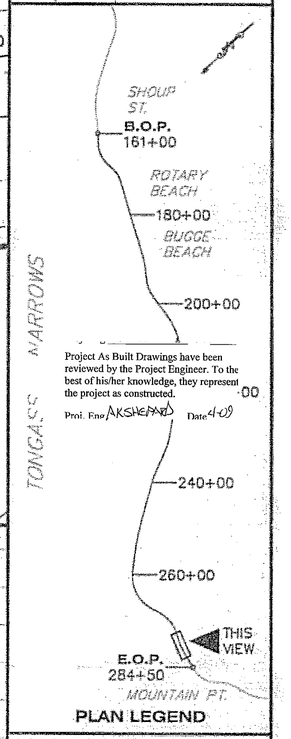
Tue, 25/Apr/06 01:43PM lrobertson
TAB: F23

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. AKSHEPARD Date 4-09

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10635
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R.S./M.L.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
F23	179

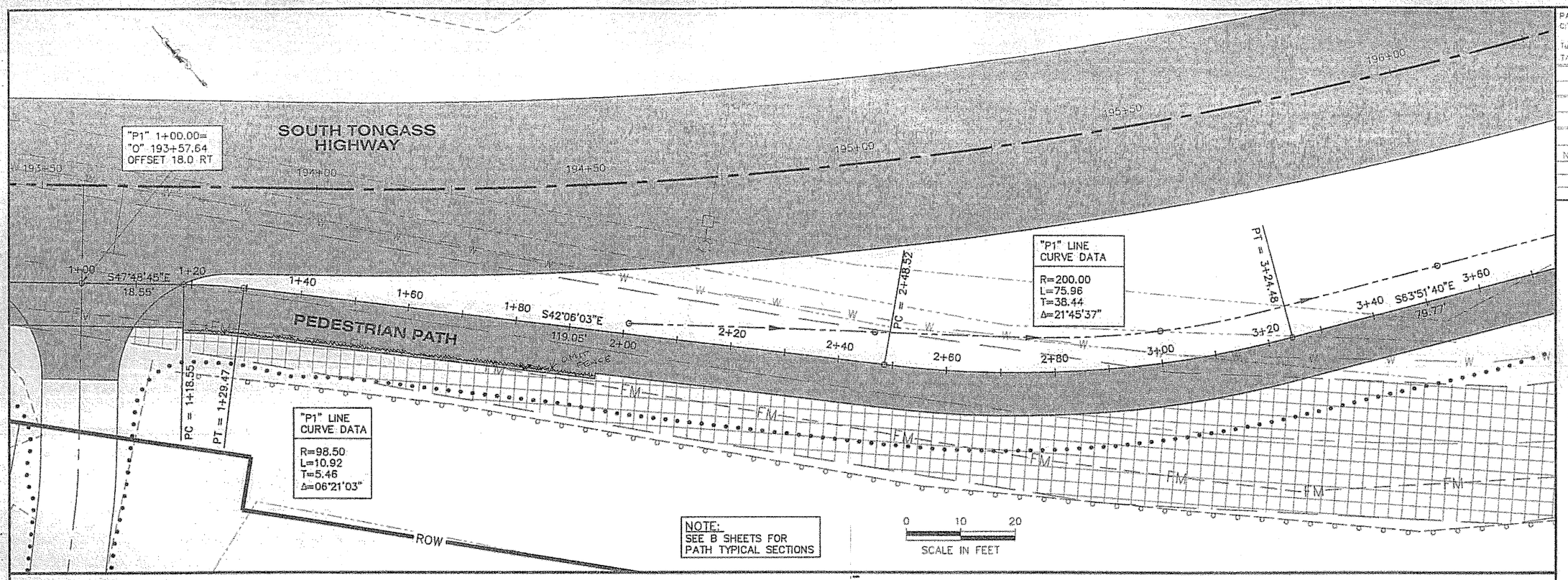
GENERAL NOTE:
SEE G SHEETS FOR PEDESTRIAN PATH, INTERSECTION & DRIVEWAY DETAILS. SEE H SHEETS FOR DRAINAGE DETAILS. SEE K SHEETS FOR RETAINING WALL DETAILS. SEE INDEX FOR ALL OTHERS.

ROW
FUTURE EDGE OF PAVEMENT
ROOSEVELT RD.
SUB STATION
PARKING LOT
ASPH PAD
SS MH
SS
SOUTH TONGASS HIGHWAY
S76°00'55"E 471.75'
282+00 282+50 283+00 283+50 284+00 284+50
FM
MT. POINT RD.
MOUNTAIN POINT BOAT LAUNCH
REST ROOMS
PL
0 20 40
SCALE IN FEET

END OF PROJECT
P.O.T. STA. "O" 284+50
N 320,509.32
E 667,675.00

SEW Node 3
STA 283+90.23 LT
INVERT IN EX 26.879
12" HDPE
BVCS: 284+00
BVCE: 31.90
STA 284+26 LT
INVERT 27.77
FINISHED PROFILE GRADE
-1.50%
EXISTING GROUND
10" HDPE S.S. F.M.
12" HDPE WATER

| | | |

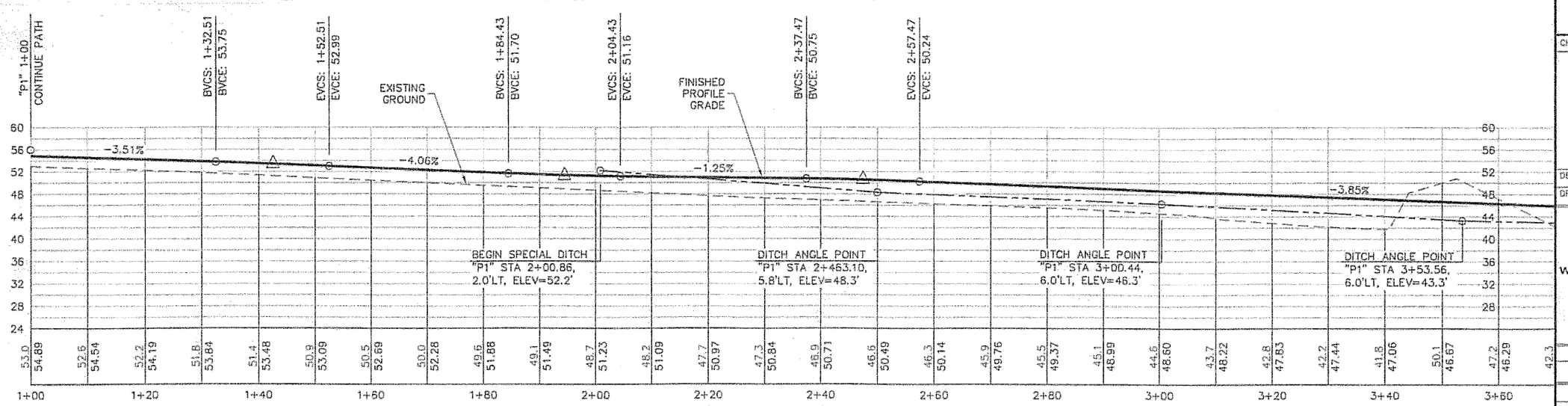


PVI STA = 1+42.51
PVI ELEV = 53.40
A.D. = -0.56
K = 35.79
VC = 20'

PVI STA = 1+94.43
PVI ELEV = 51.29
A.D. = 2.81
K = 7.12
VC = 20'

PVI STA = 2+47.47
PVI ELEV = 50.63
A.D. = -2.60
K = 7.69
VC = 20'

ESTIMATED EARTHWORK QUANTITIES
ARE INCLUDED IN THE "O" LINE
QUANTITIES, SEE F SHEETS.



PROFILE
"P1" LINE - SEPARATED PATH

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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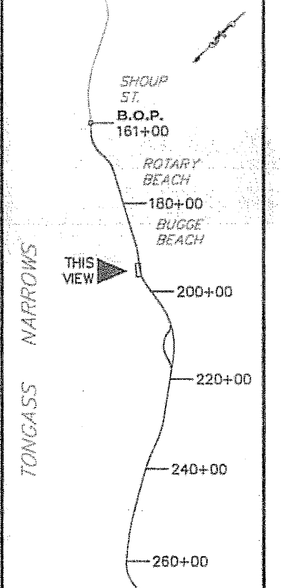
Tue. 25/Apr/06 01:50PM rrobertson
TAB G1A

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

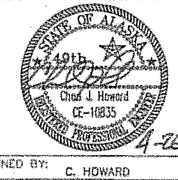


Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng /S/ SIGNED Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL



DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

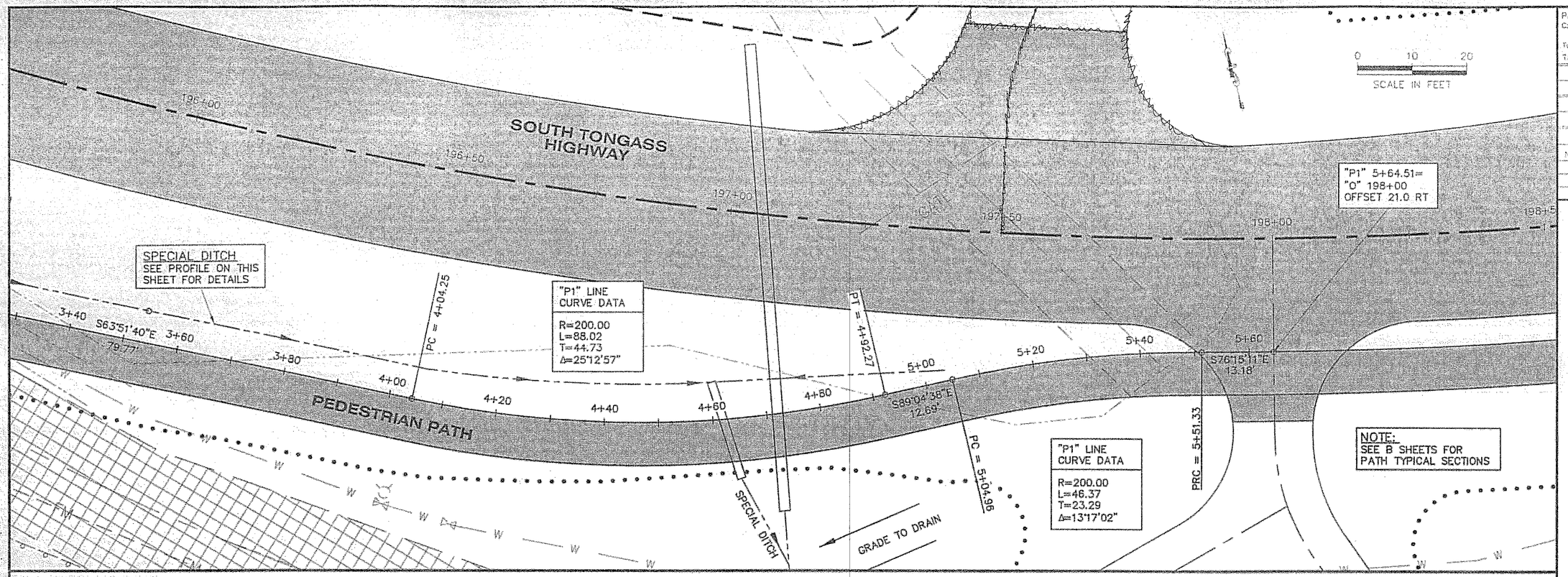
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G1A	179

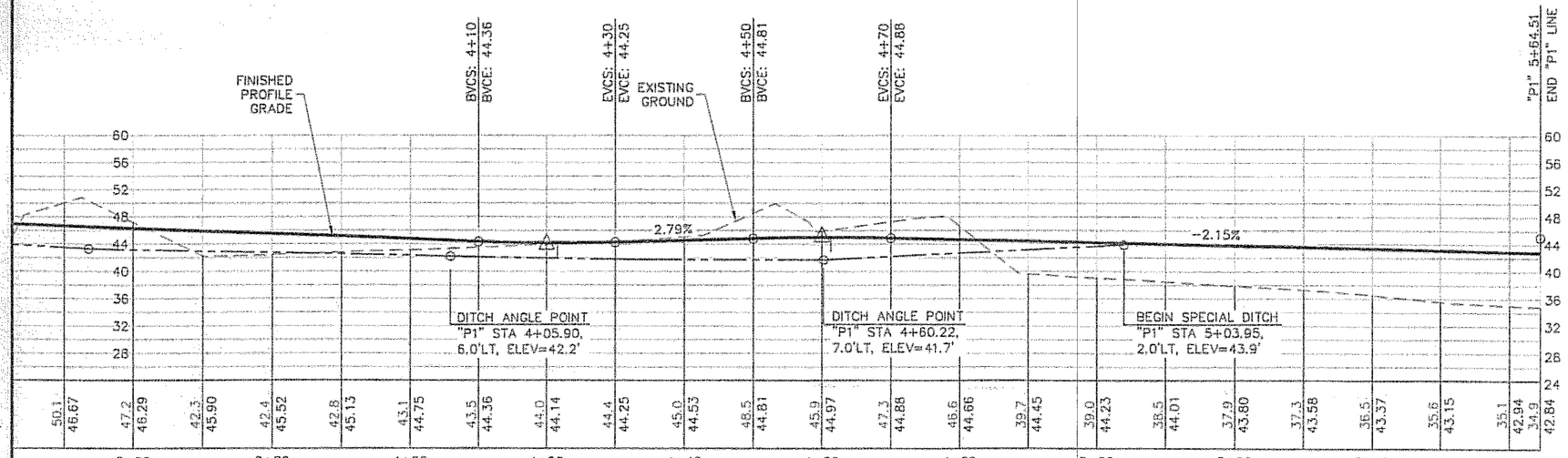


PLAN

LOW POINT ELEV = 44.14
LOW POINT STA = 4+21.60
PVI STA = 4+20
PVI ELEV = 43.98
A.D. = 6.65
K = 3.01
VC = 20'

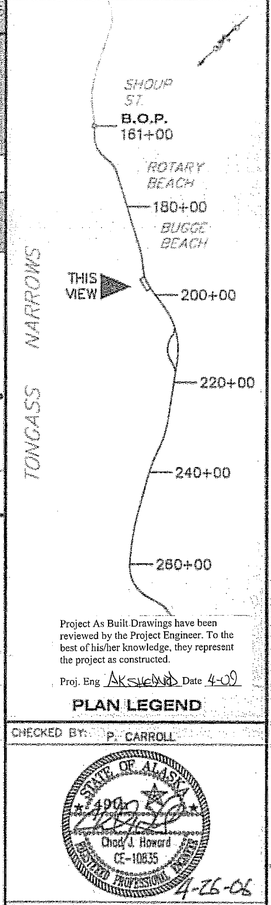
HIGH POINT ELEV = 44.97
HIGH POINT STA = 4+61.29
PVI STA = 4+60
PVI ELEV = 45.09
A.D. = -4.94
K = 4.04
VC = 20'

ESTIMATED EARTHWORK QUANTITIES ARE INCLUDED IN THE "O" LINE QUANTITIES, SEE F SHEETS.



PROFILE
"P1" LINE - SEPARATED PATH

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PATH:
C:\Documents and Settings\lrobertson\Local Se

Tue, 25/Apr/06 01:50PM lrobertson
TAB: G1B

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHOWARD Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
#490
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

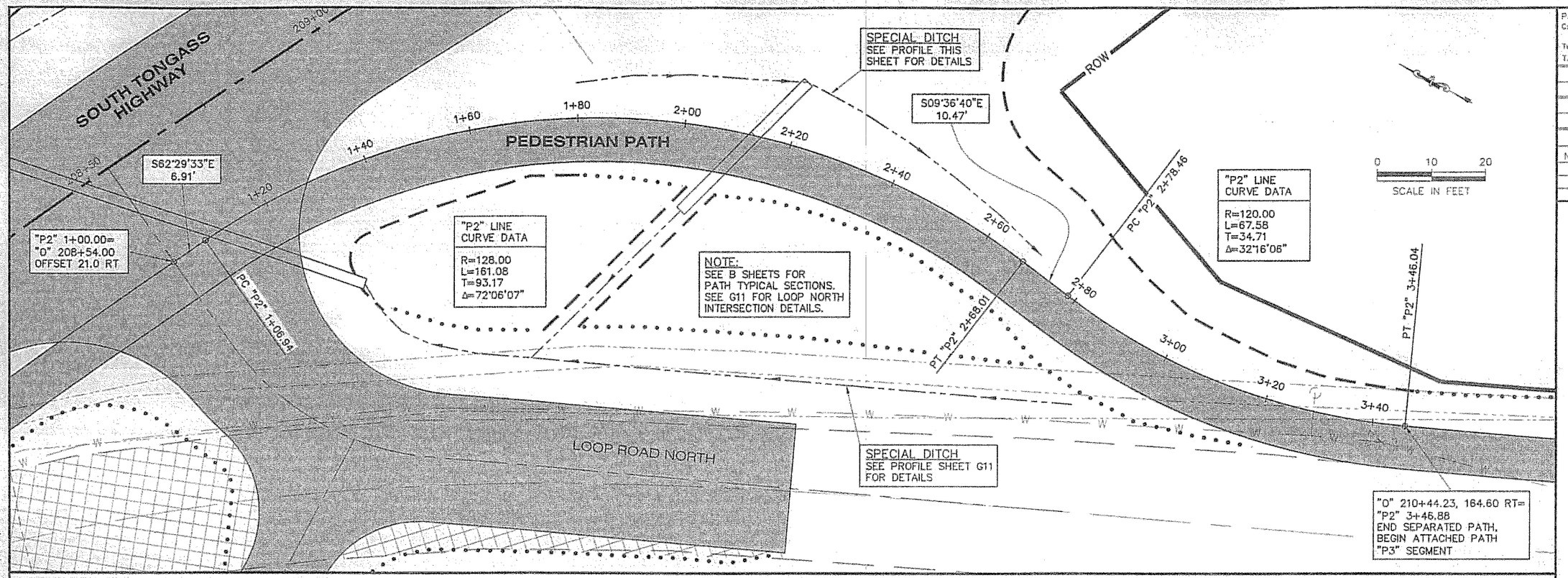
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G1B	179

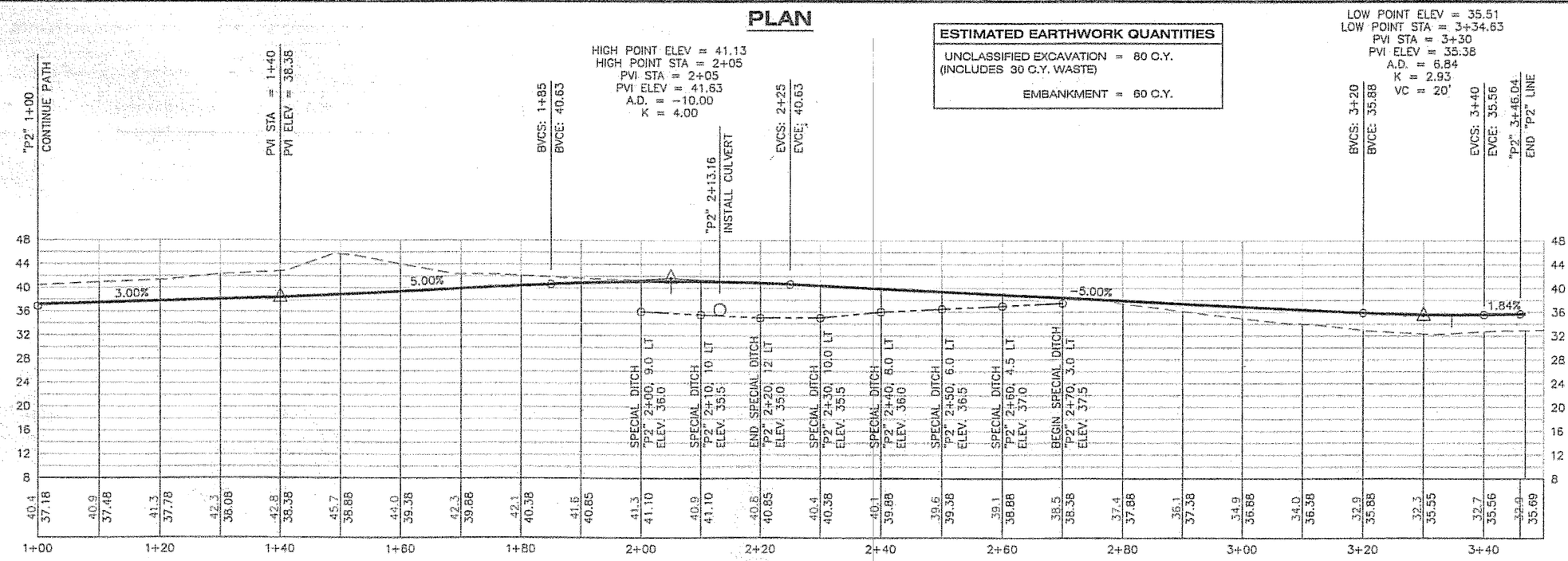


PLAN

HIGH POINT ELEV = 41.13
HIGH POINT STA = 2+05
PVI STA = 2+05
PVI ELEV = 41.63
A.D. = -10.00
K = 4.00

LOW POINT ELEV = 35.51
LOW POINT STA = 3+34.63
PVI STA = 3+30
PVI ELEV = 35.38
A.D. = 6.84
K = 2.93
VC = 20'

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION (INCLUDES 30 C.Y. WASTE)	80 C.Y.
EMBANKMENT	60 C.Y.



PROFILE
"P2" LINE - LOOP ROAD SEPARATED PATH

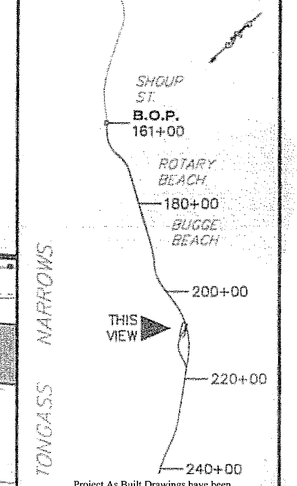
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:51PM lrobertson
TAB: G2

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SIGNED Date 4-9

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

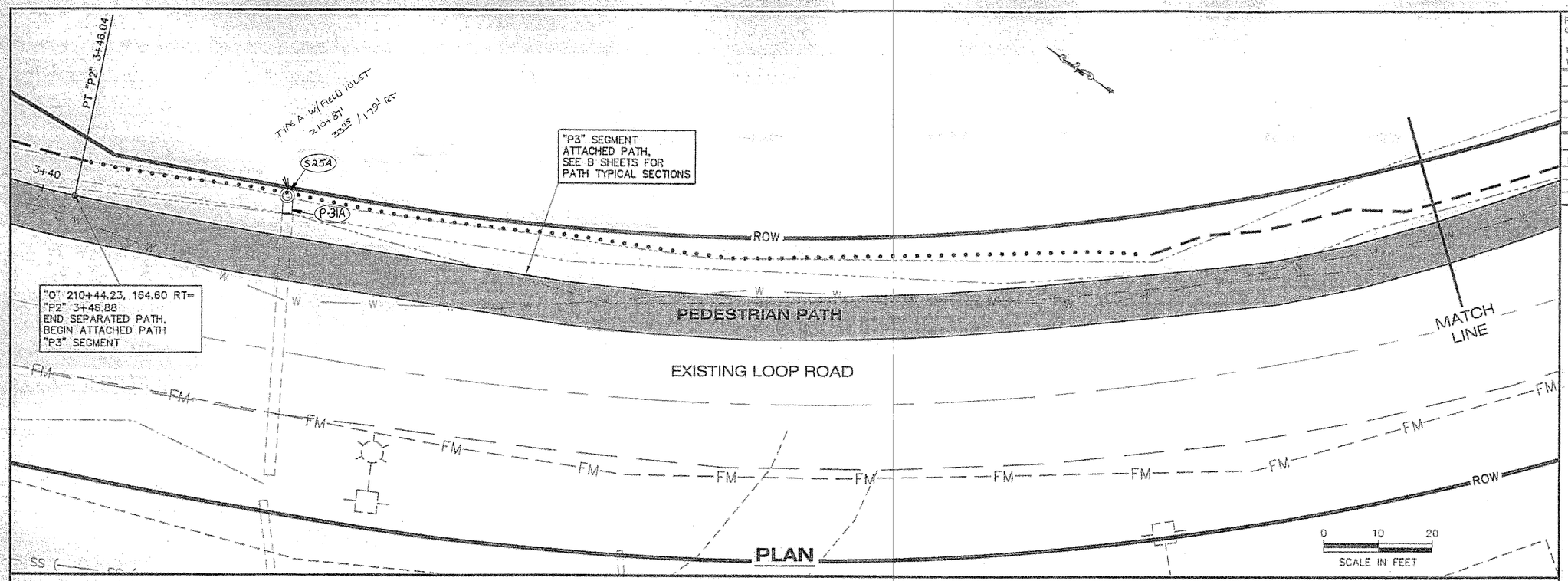
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G2	179



ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (INCLUDES 10 C.Y. WASTE)	= 50 C.Y.
EMBANKMENT	= 120 C.Y.

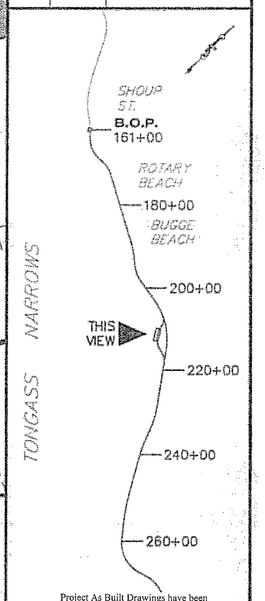
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:51PM lrobertson
TAB: G3

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. [signature] Date 6-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad A. Howard
CE-10835
PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

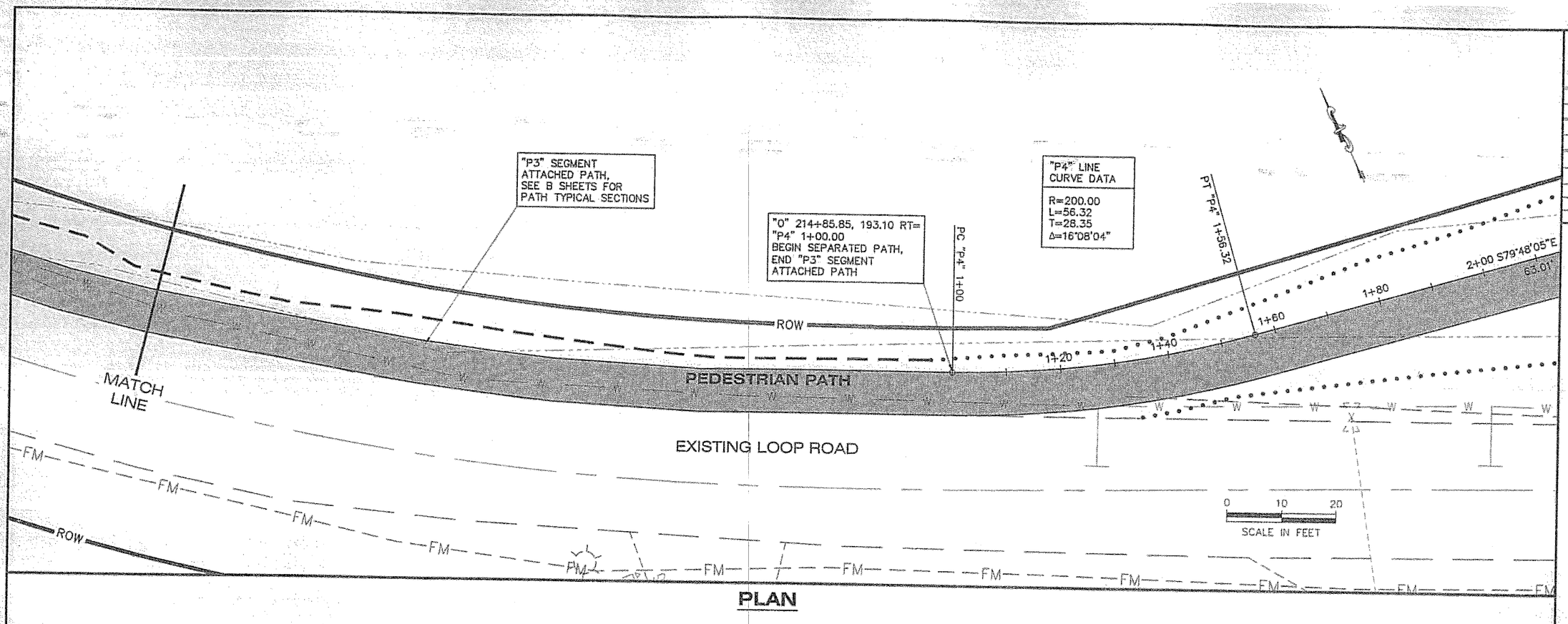
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

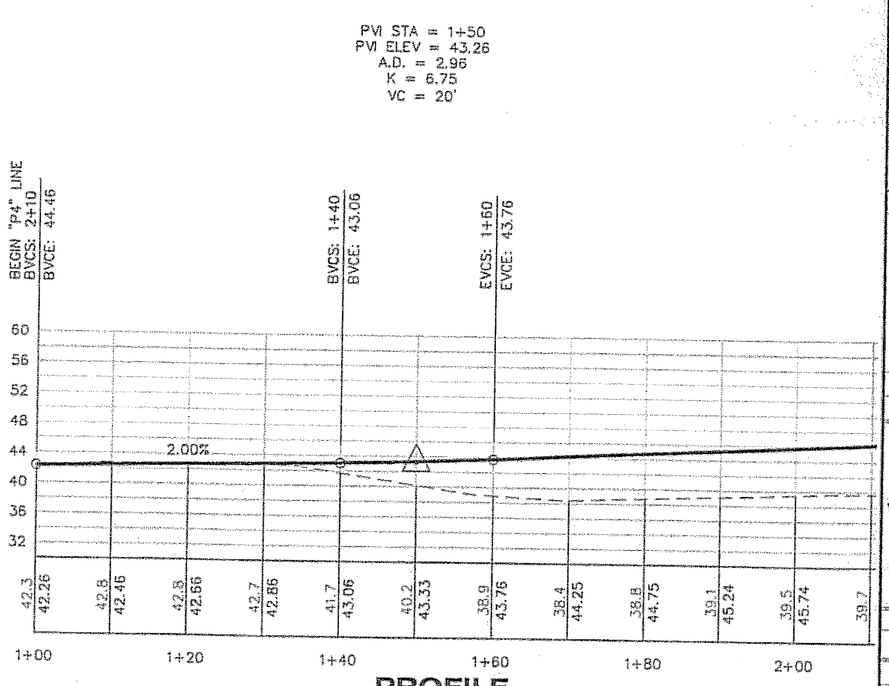
SEPARATED PEDESTRIAN PATH PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G3	179



PLAN

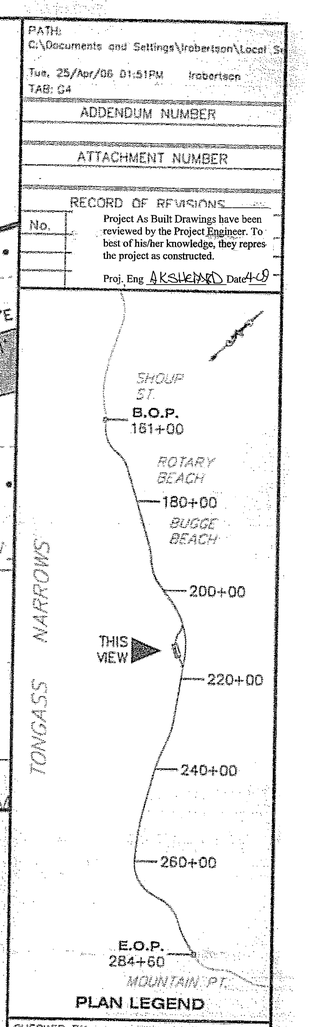
ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	= 10 C.Y.
EMBANKMENT	= 2500 C.Y.



PROFILE

"P4 LINE - LOOP ROAD SEPARATED PATH

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN LEGEND

PATH: C:\Documents and Settings\lrobertson\Local S
Tue, 25/Apr/06 01:51PM lrobertson
TAB: G4

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	
	Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
	Proj. Eng A KSUEWARD Dat 4-09

CHECKED BY: P. CARROLL

STATE OF ALASKA — 18th — Chad A. Howard — CE-10835 — REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

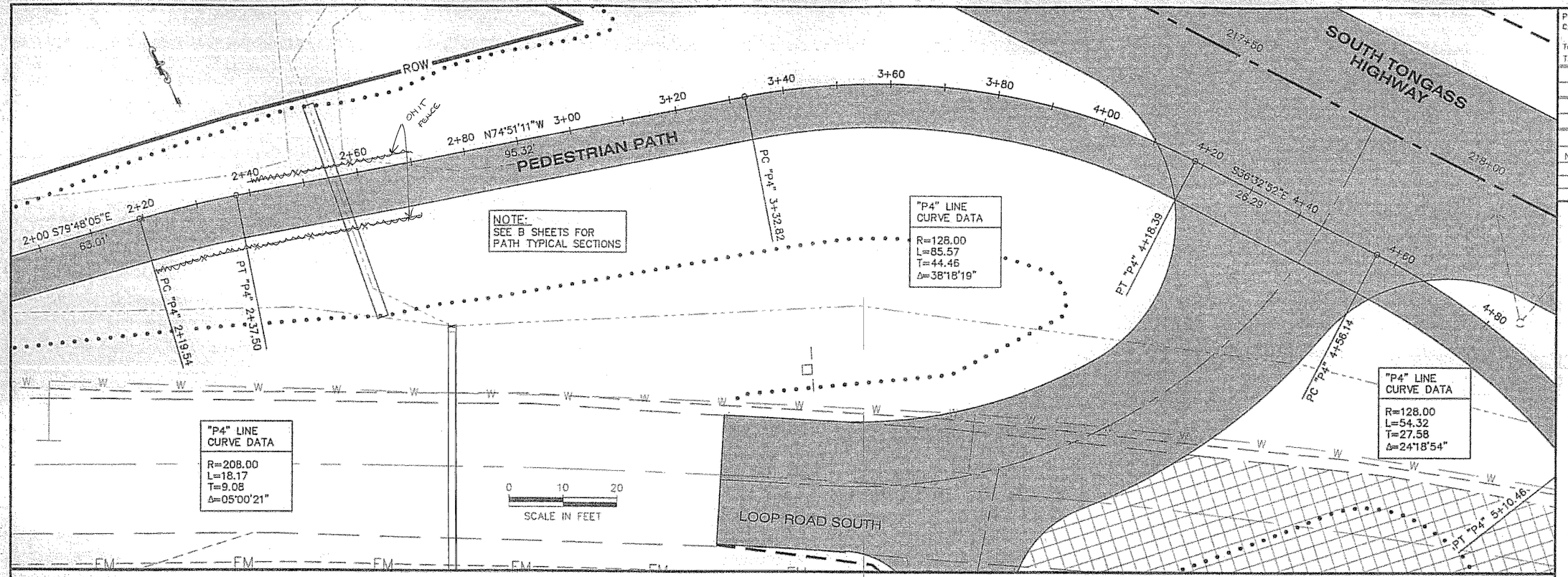
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN & PROFILE

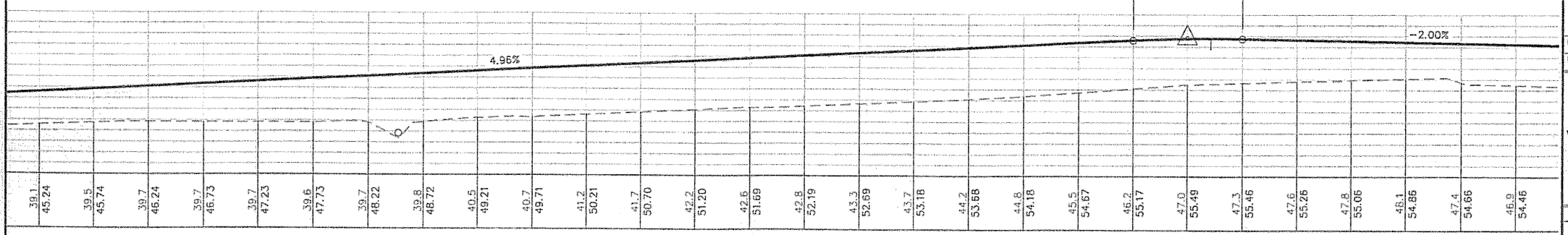
PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G4	179



PLAN

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	= 10 C.Y.
EMBANKMENT	= 1400 C.Y.

HIGH POINT ELEV = 55.52
HIGH POINT STA = 4+04.25
PVI STA = 4+00
PVI ELEV = 55.66
A.D. = -6.96
K = 2.87
VC = 20'



PROFILE
"P4" LINE - LOOP ROAD SEPARATED PATH

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: C:\Doc
Tue, 2
TAB: (

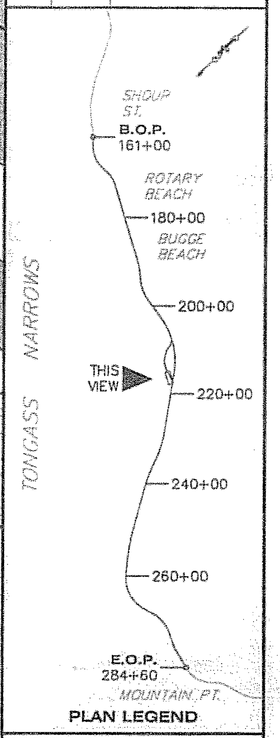
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSHCPATH Date 4-09

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad D. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

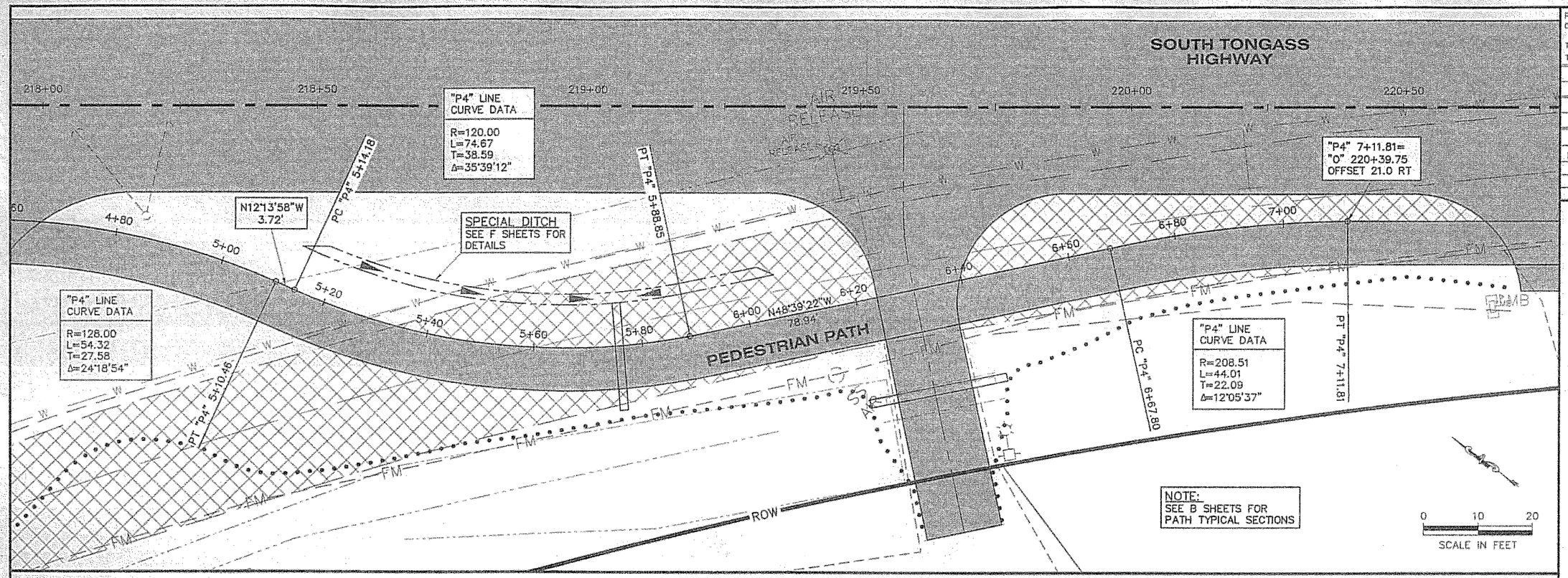
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G5	179



PLAN

PVI STA = 4+88.32
PVI ELEV = 53.90
A.D. = −2.77
K = 7.22
VC = 20'

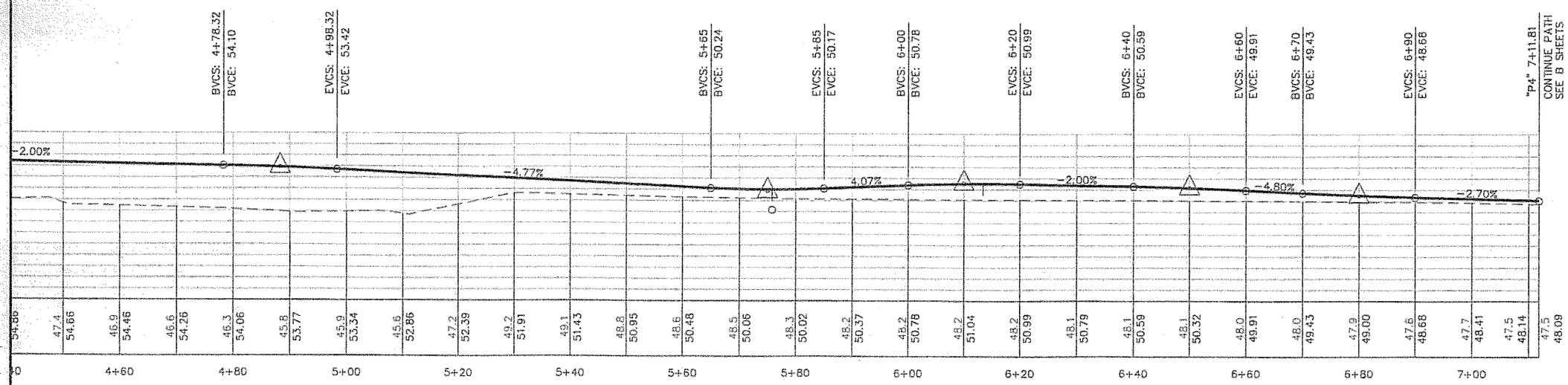
ESTIMATED EARTHWORK QUANTITIES ARE INCLUDED IN THE "O" LINE QUANTITIES, SEE F SHEETS.

LOW POINT ELEV = 49.98 LOW POINT STA = 5+75.79 PVI STA = 5+75
PVI ELEV = 49.76
A.D. = 8.85
K = 2.26
VC = 20'

HIGH POINT ELEV = 51.05
HIGH POINT STA = 6+13.42
PVI STA = 6+10
PVI ELEV = 51.19
A.D. = −6.07
K = 3.29
VC = 20'

PVI STA = 6+50
PVI ELEV = 50.39
A.D. = −2.80
K = 7.15
VC = 20'

PVI STA = 6+80
PVI ELEV = 48.95
A.D. = 2.10
K = 9.54
VC = 20'



PROFILE
"P4" LINE - LOOP ROAD SEPARATED PATH

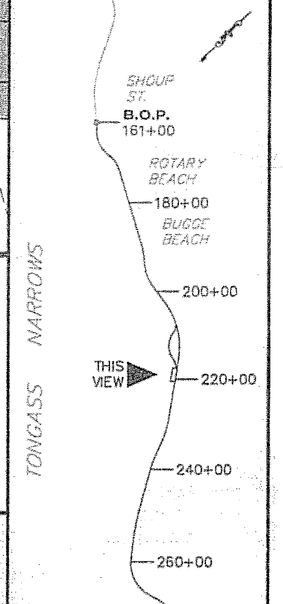
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: C:\Documents and Settings\robertson\Local Se
Tue, 25/Apr/06 01:51PM robertson
TAB: G6

ADDENDUM NUMBER

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Engr. Date 4-06

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad D. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

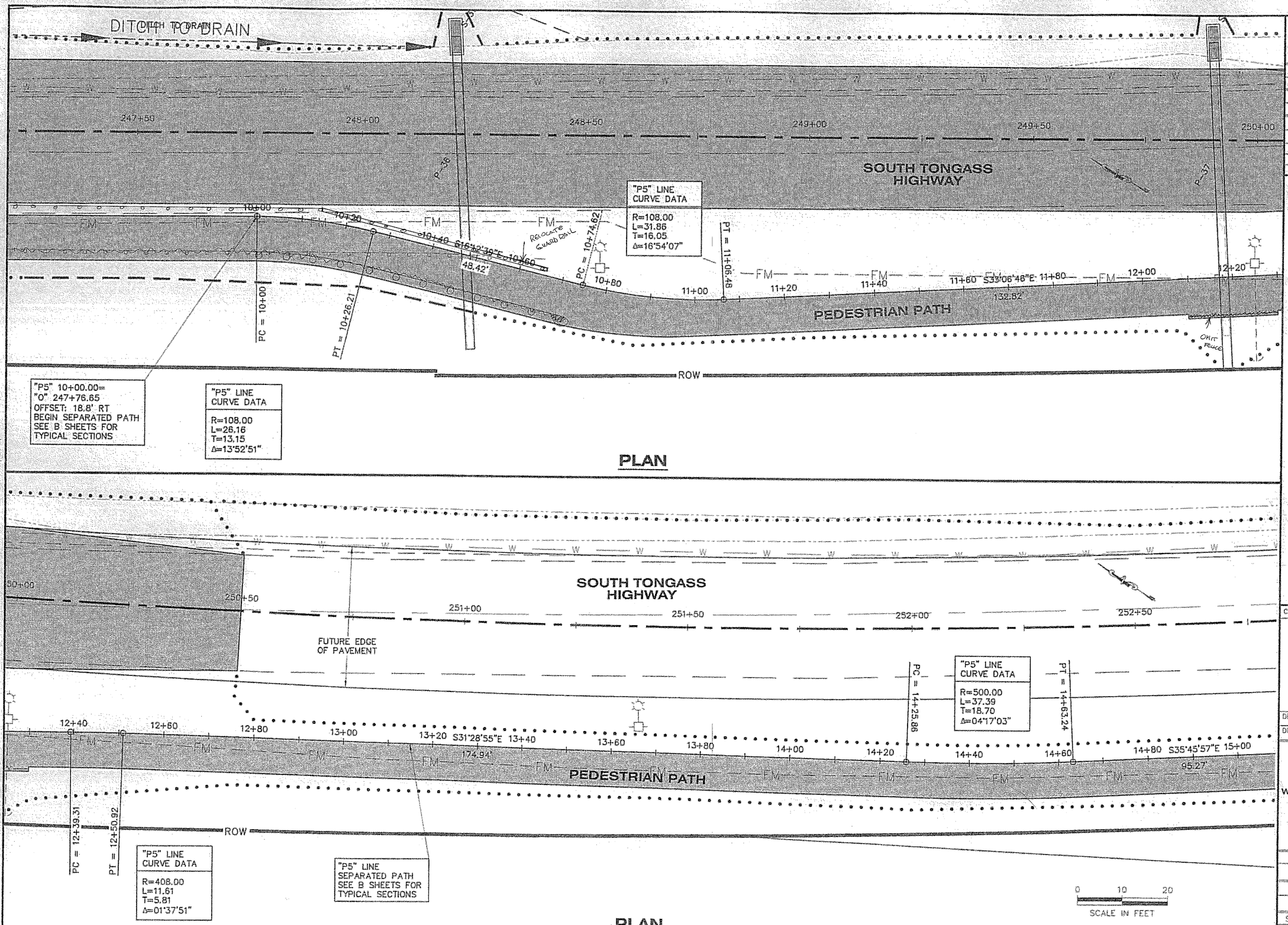
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

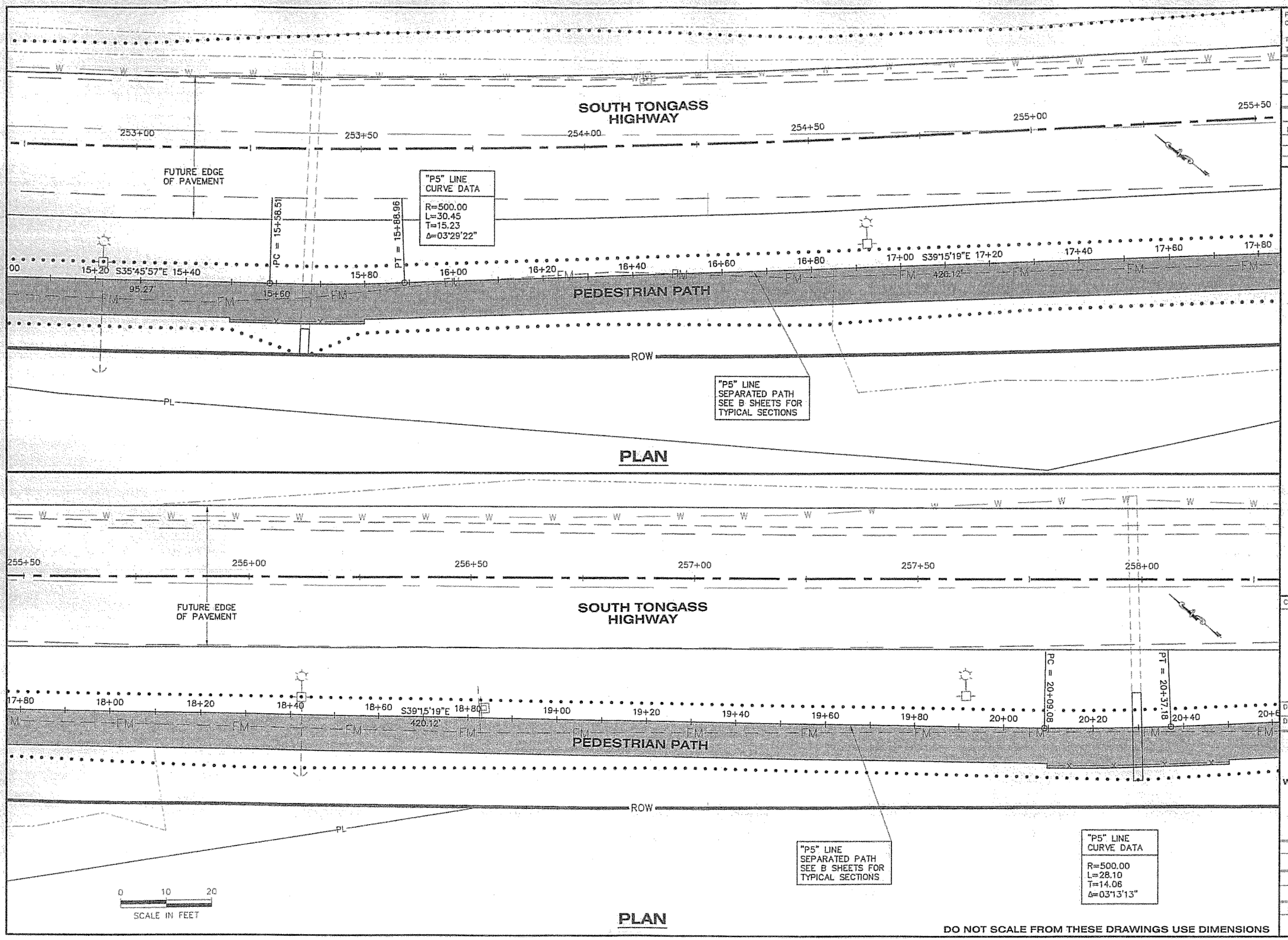
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLAN

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G6	179


DITCH TO DRAIN
247+50
248+00
248+50
249+00
249+50
250+00
SOUTH TONGASS HIGHWAY
P-36
P-37
"P5" LINE CURVE DATA
R=108.00
L=31.86
T=16.05
Δ=16°54'07"
PC = 10+74.62
PT = 11+06.48
RELOCATE GUARD RAIL
10+00
10+20
10+40
S16°42'39"E 10.60
48.42'
PC = 10+00
PT = 10+26.21
10+80
11+00
11+20
11+40
11+60 S33°06'48"E 11+80
132.82'
12+00
12+20
PEDESTRIAN PATH
OHHT
ROW
"P5" 10+00.00=
"O" 247+76.65
OFFSET: 18.8' RT
BEGIN SEPARATED PATH
SEE B SHEETS FOR
TYPICAL SECTIONS
"P5" LINE CURVE DATA
R=108.00
L=26.16
T=13.15
Δ=13°52'51"
PLAN
250+00
250+50
251+00
251+50
252+00
252+50
SOUTH TONGASS HIGHWAY
FUTURE EDGE OF PAVEMENT
12+40
12+60
12+80
13+00
13+20 S31°28'55"E 13+40
174.94'
13+60
13+80
14+00
14+20
14+40
14+60
14+80 S35°45'57"E 15+00
95.27'
PEDESTRIAN PATH
ROW
PC = 12+39.31
PT = 12+50.92
"P5" LINE CURVE DATA
R=408.00
L=11.61
T=5.81
Δ=01°37'51"
"P5" LINE SEPARATED PATH SEE B SHEETS FOR TYPICAL SECTIONS
PC = 14+25.86
PT = 14+63.24
"P5" LINE CURVE DATA
R=500.00
L=37.39
T=18.70
Δ=04°17'03"
PLAN
0 10 20
SCALE IN FEET
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS
PATH: C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:52PM lrobertson
TAB: G7
ADDENDUM NUMBER
ATTACHMENT NUMBER
RECORD OF REVISIONS
No.
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represen the project as constructed.
Proj. Eng. A K SHERARD Date 4-06
SHOUP ST.
B.O.P. 161+00
ROTARY BEACH
180+00
BUGGE BEACH
200+00
220+00
240+00
260+00
E.O.P. 284+60
MOUNTAIN PT.
TONGASS NARROWS
THESE VIEWS
PLAN LEGEND
CHECKED BY: P. CARROLL
STATE OF ALASKA
Chad U. Howard
CE-10835
PROFESSIONAL ENGINEER
4-26-06
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670
SEPARATED PEDESTRIAN PATH PLANS
PROJECT DESIGNATION
MGS-STP-0902(20)
STATE: ALASKA
YEAR: 2006
SHEET NUMBER: G7
TOTAL SHEETS: 179



PATH: C:\Documents and Settings\lrobertson\Local S

Tue, 25/Apr/06 01:52PM lrobertson

TAB: G8

ADDENDUM NUMBER

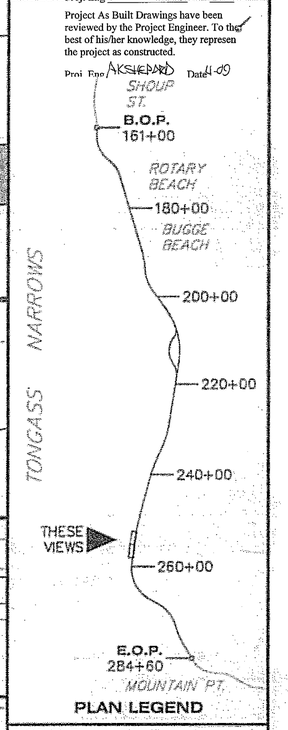
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represen the project as constructed.

Proj. Engr. AKSHEPARD Date 11-09



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA REGISTERED PROFESSIONAL ENGINEER Chad J. Howard CE-10835

4-26-06

DESIGNED BY: C. HOWARD

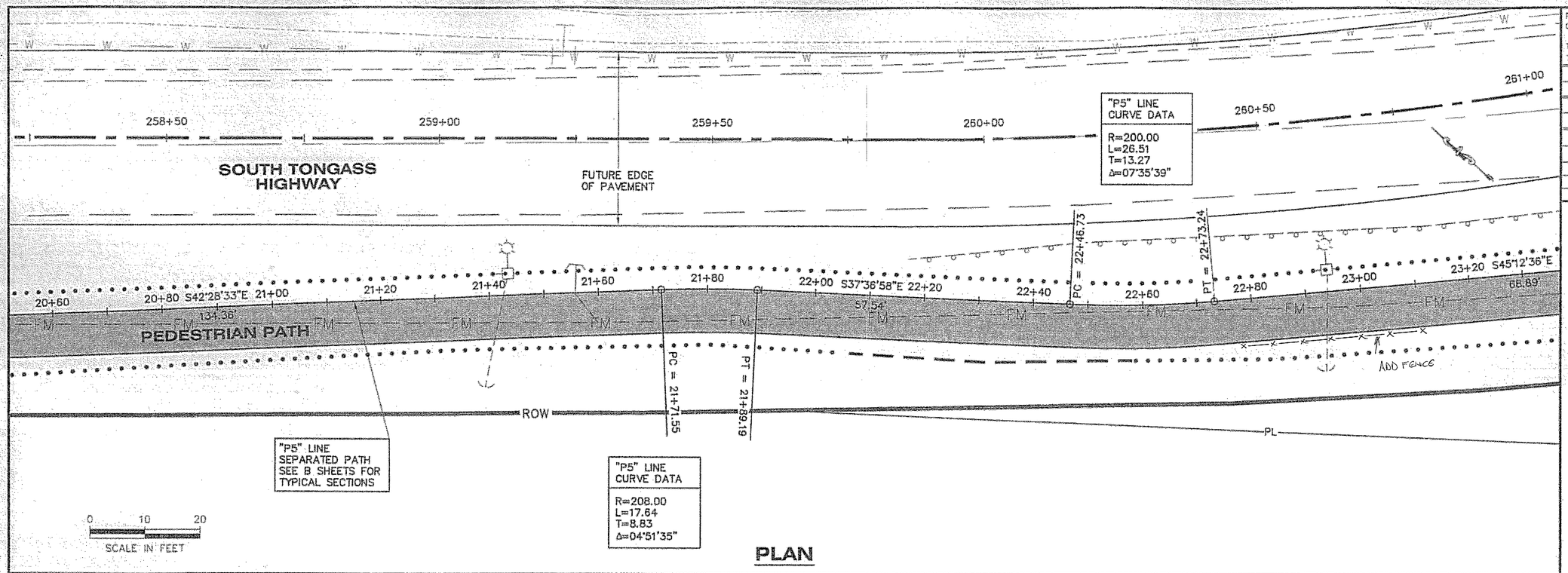
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLANS

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G8	179



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Tue,
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Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng JK SWEARD Date 4-06

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA
19th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

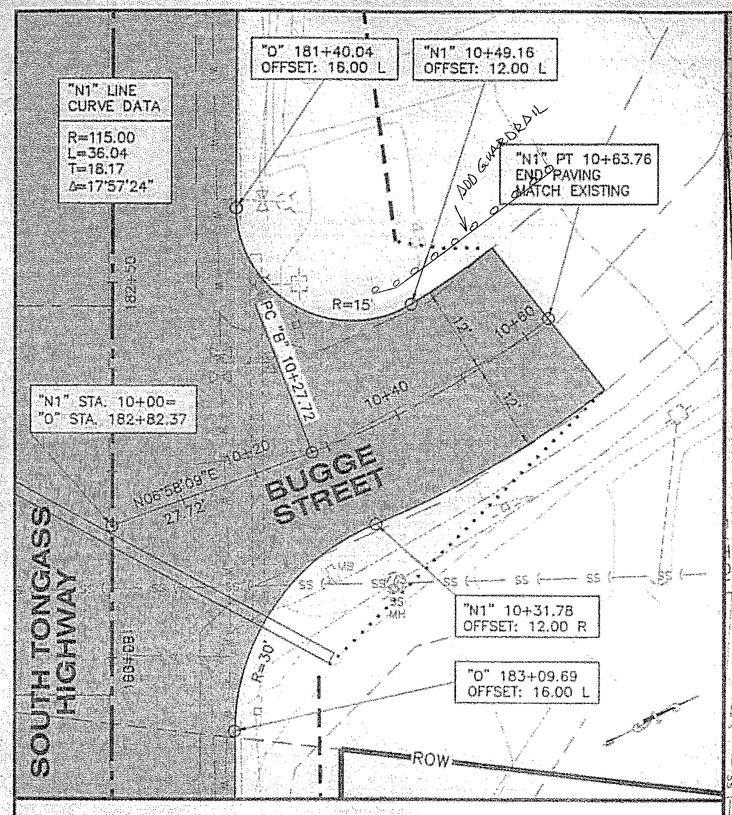
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

SEPARATED PEDESTRIAN PATH PLANS

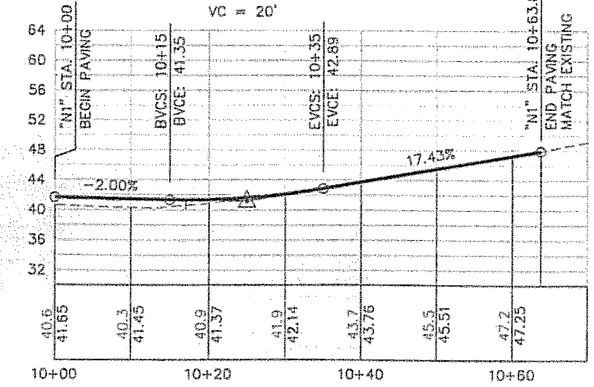
PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G9	179



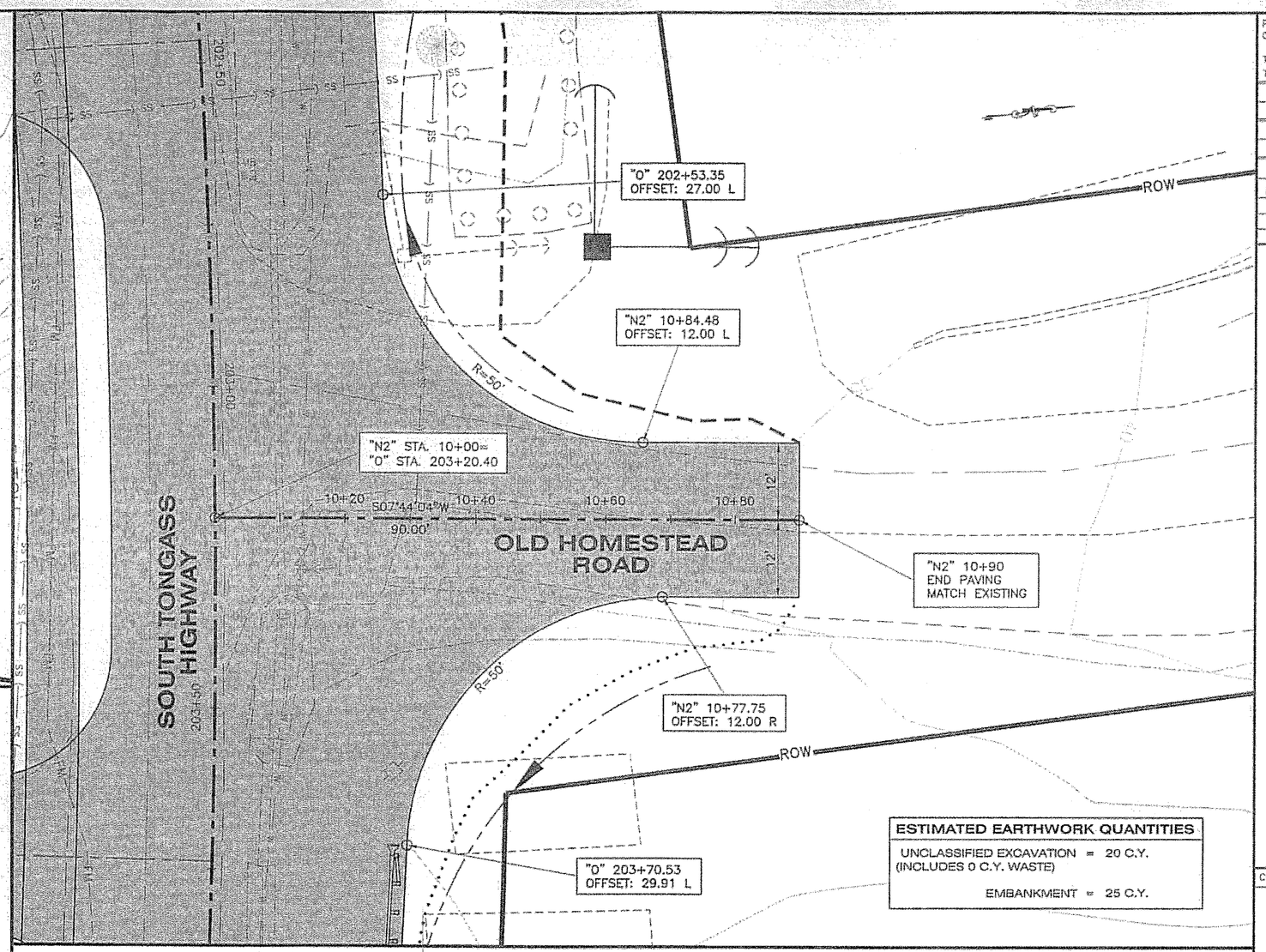
PLAN

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION = 40 C.Y. (INCLUDES 0 C.Y. WASTE)	
EMBANKMENT = 0 C.Y.	

LOW POINT ELEV = 41.33
LOW POINT STA = 10+17.06
PVI STA = 10+25
PVI ELEV = 41.15
A.D. = 19.43
K = 1.03
VC = 20'

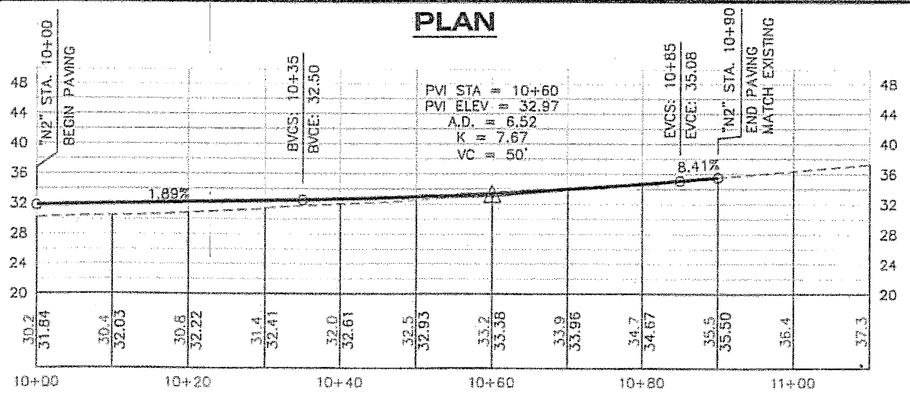


PROFILE
"N1" LINE - BUGGE STREET



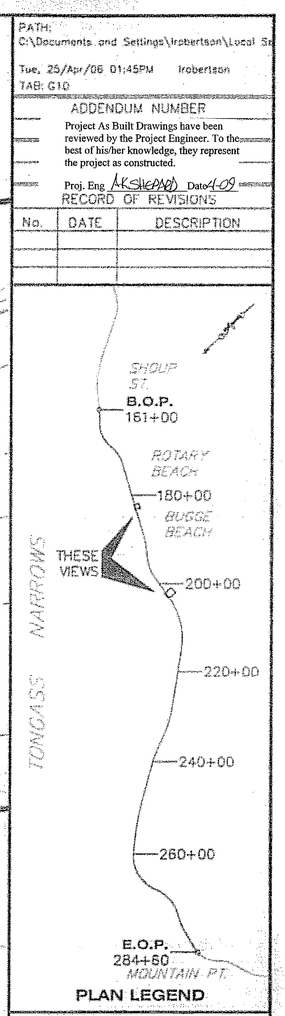
0 10 20
SCALE IN FEET

PLAN



PROFILE
"N2" LINE - OLD HOMESTEAD ROAD

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN LEGEND

PATH: C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:45PM lrobertson
TAB: G10

ADDENDUM NUMBER

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AK SHEPARD Date 4-09

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CHECKED BY: P. CARROLL

STATE OF ALASKA
#4946
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

N1 & N2 INTERSECTION PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G10	179

"N3" STA. 10+00=
"O" STA. 208+54.02

"O" 209+01.94
OFFSET: 16.00 R

SOUTH TONGASS HIGHWAY

PEDESTRIAN PATH

SPECIAL DITCH

ROW

"O" 208+10.94
OFFSET: 16.00 R

"N3" LINE CURVE DATA
R=50.00
L=43.97
T=23.52
Δ=50°23'26"

"N3" 11+25.16
OFFSET: 49.72 L
ELEV 34.6

"N3" 11+00
OFFSET: 20.00 L
ELEV 34.0

SPECIAL DITCH
SEE PROFILE THIS SHEET FOR DETAILS

NOTE:
SEE SHEETS G1A-G9
FOR PATH DETAILS

"N3" 10+85.21
OFFSET: 12.00 L

"N3" 10+43.25
OFFSET: 12.00 R

"N3" 10+49.93
OFFSET: 12.00 R

"N3" 10+69.57
BEGIN DRIVEWAY

"N3" 10+62.17
OFFSET: 27.24 R

"N3" 10+69.57
OFFSET: 39.82 R
END DRIVEWAY

"N3" 10+71+42
OFFSET: 26.32 R

"N3" 10+83.67
OFFSET: 12.00 R

LOOP ROAD NORTH

"N3" 11+50
END PAVING
MATCH EXISTING

S22°57'01"E 166.83'

S67°26'25"W 10.00

S88°58'37"W 39.82

PC = 10+39.19

PT = 10+83.17

R=30'

R=20'

10+40

10+60

10+80

11+00

11+20

11+40

11+60

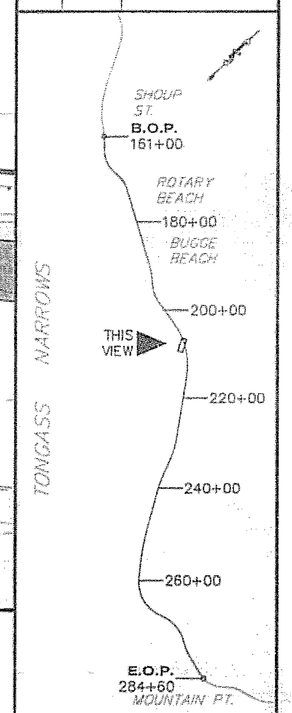
11+80

12+00

12'

FM

ROW



PLAN LEGEND

PLAN

PVI STA = 10+50
PVI ELEV = 36.60
A.D. = -0.79
K = 25.42
VC = 20'

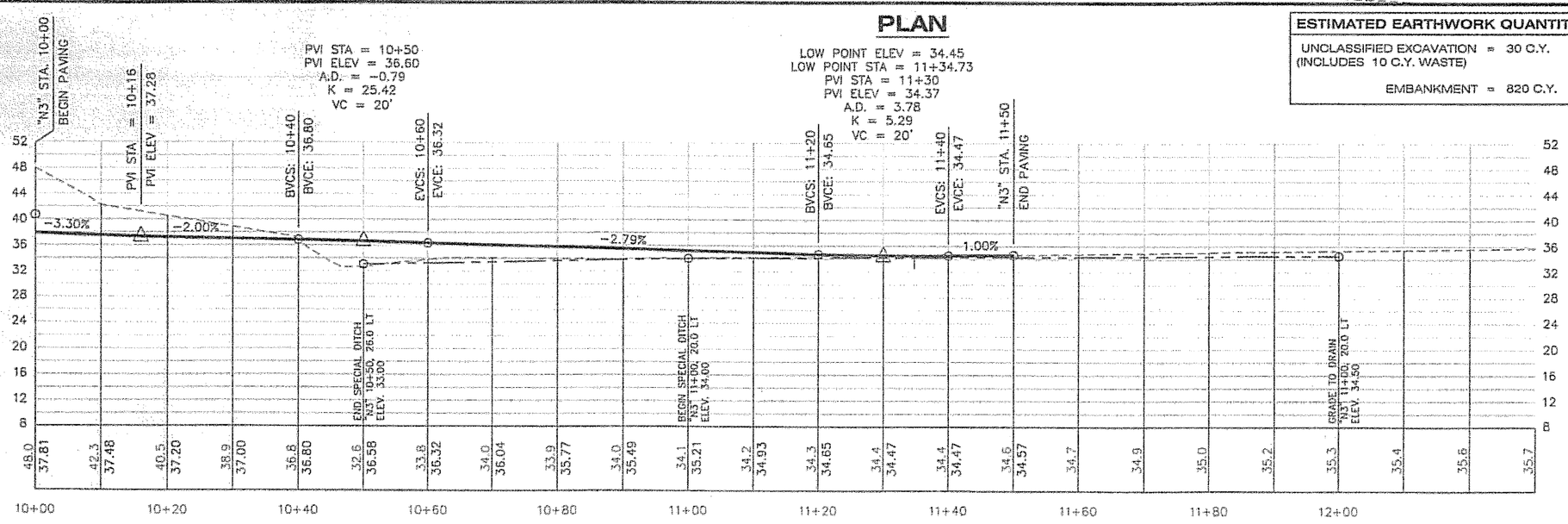
LOW POINT ELEV = 34.45
LOW POINT STA = 11+34.73
PVI STA = 11+30
PVI ELEV = 34.37
A.D. = 3.78
K = 5.29
VC = 20'

ESTIMATED EARTHWORK QUANTITIES

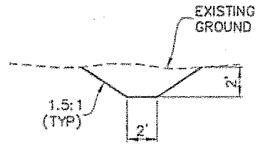
UNCLASSIFIED EXCAVATION = 30 C.Y.
(INCLUDES 10 C.Y. WASTE)

EMBANKMENT = 820 C.Y.

0 10 20
SCALE IN FEET



PROFILE
"N3" LINE - LOOP ROAD NORTH



SECTION A-A
SPECIAL DITCH
NTS

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:45PM lrobertson
TAB: G11

ADDENDUM NUMBER

ATTACHMENT NUMBER

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

No.

Proj. Eng AK SHEPARD Date 4-06

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

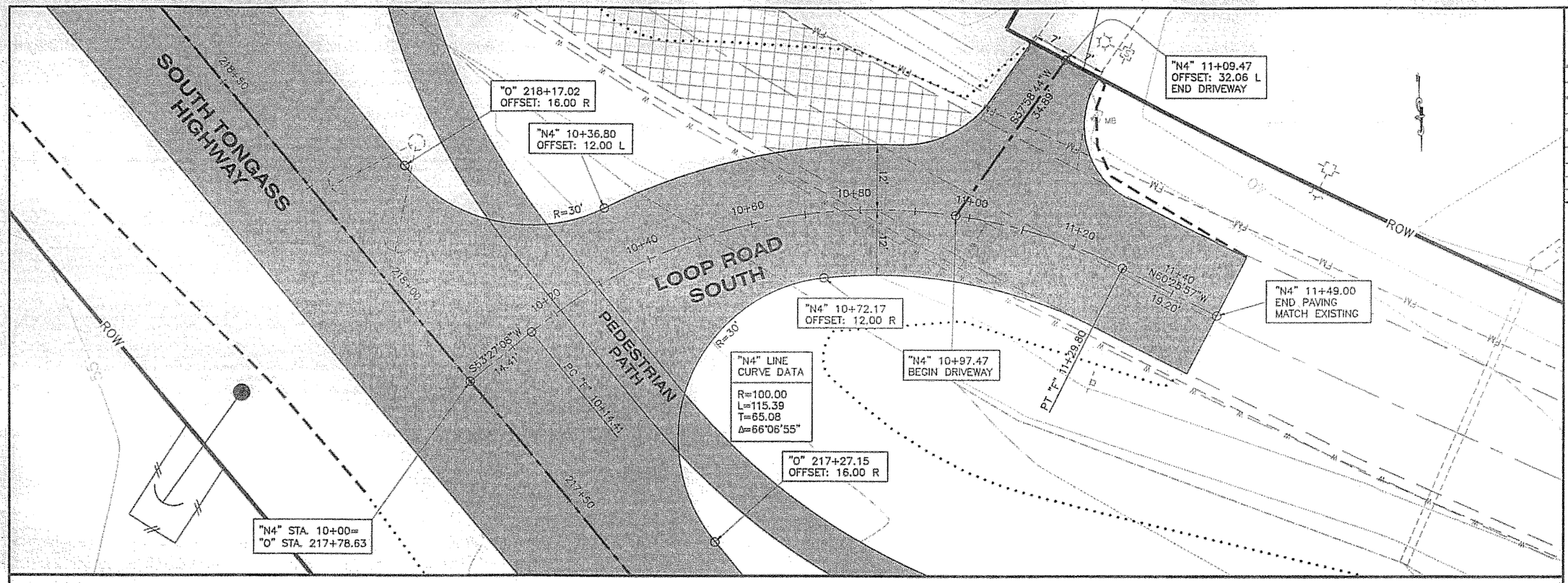
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

N3 INTERSECTION PLAN & PROFILE

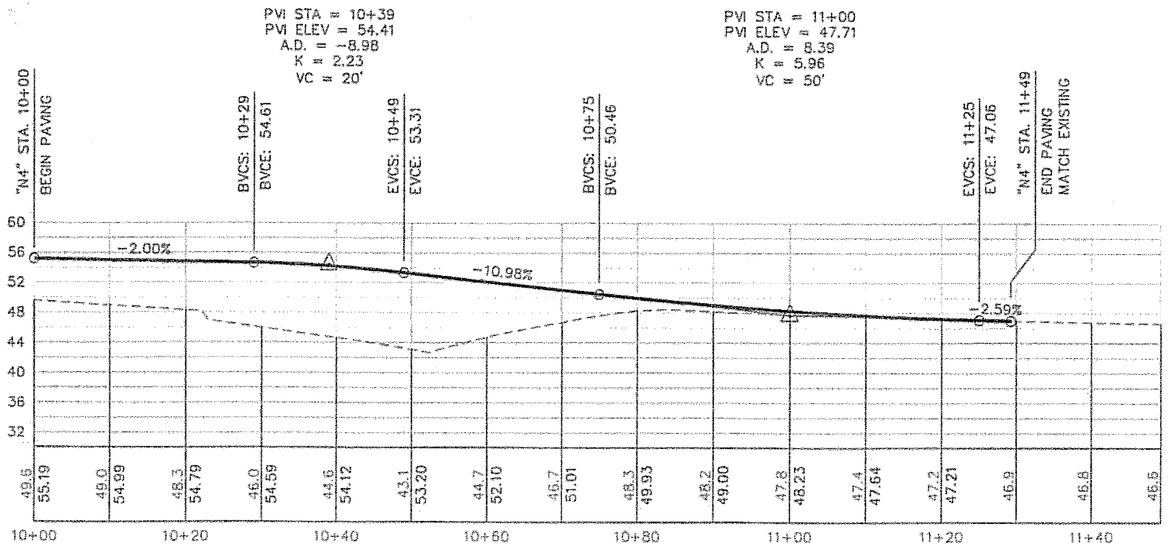
PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G11	179



PLAN

0 10 20
SCALE IN FEET



PROFILE
"N4" LINE - LOOP ROAD SOUTH

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 10 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 450 C.Y.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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Tue, 25/Apr/06 01:45PM lrobertson
TAB: G12

ADDENDUM NUMBER

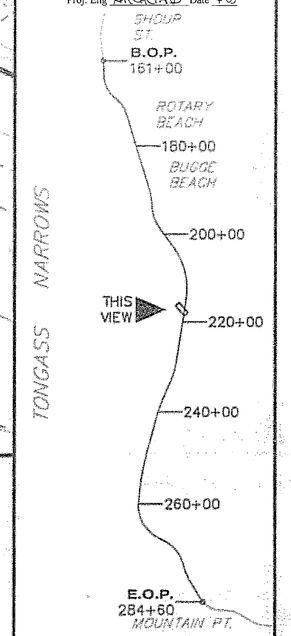
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

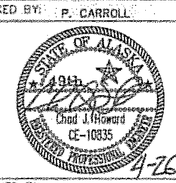
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng [signature] Date 4-6



PLAN LEGEND

CHECKED BY: P. CARROLL



DESIGNED BY: C. HOWARD

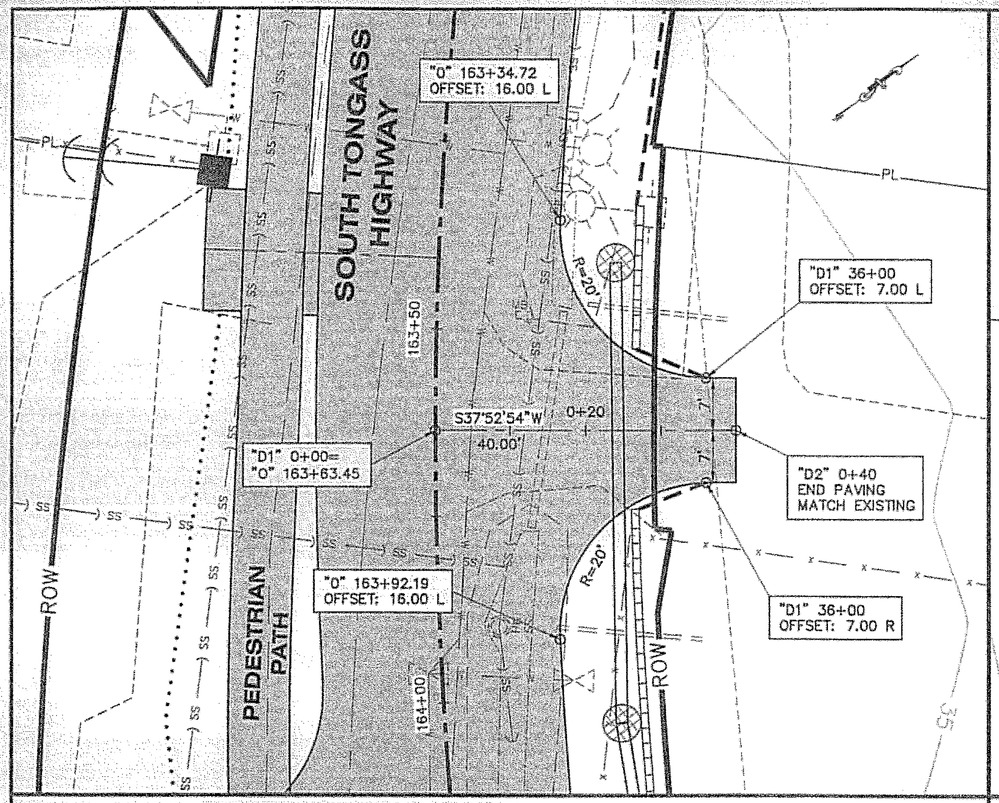
DRAWN BY: R. SNYDER

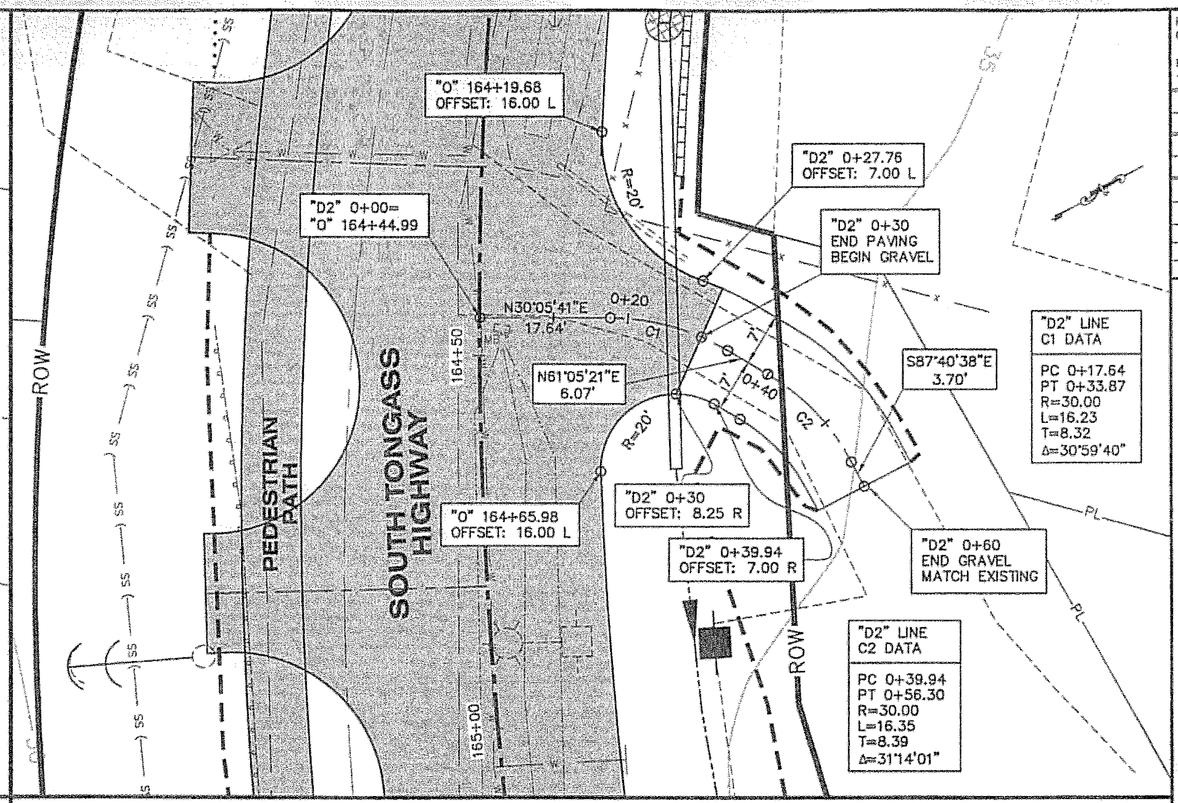
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

INTERSECTION PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G12	179



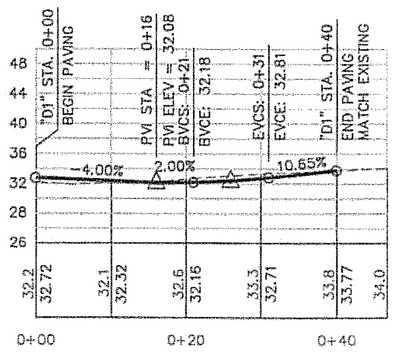


PLAN

0 10 20
SCALE IN FEET

ESTIMATED EARTHWORK QUANTITIES
UNCLASSIFIED EXCAVATION = 5 C.Y. (INCLUDES 0 C.Y. WASTE)
EMBANKMENT = 0 C.Y.

PVI STA = 0+26
PVI ELEV = 32.28
A.D. = 8.65
K = 1.16
VC = 10'



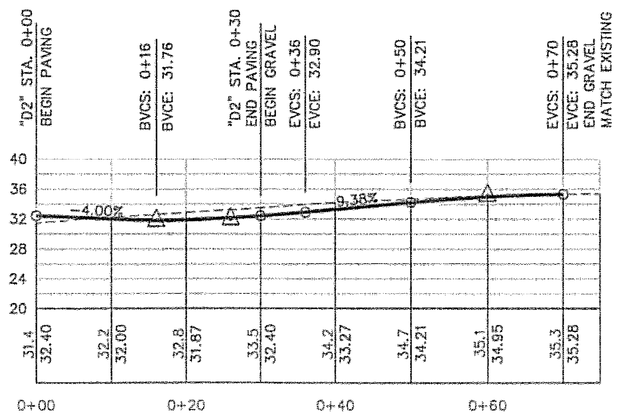
PROFILE
"D1" LINE - HOUSE #3225

PLAN

ESTIMATED EARTHWORK QUANTITIES
UNCLASSIFIED EXCAVATION = 30 C.Y. (INCLUDES C.Y. WASTE)
EMBANKMENT = 0 C.Y.

PVI STA = 0+26
PVI ELEV = 31.96
A.D. = 7.38
K = 2.71
VC = 20'

PVI STA = 0+60
PVI ELEV = 35.15
A.D. = -8.04
K = 2.49
VC = 20'



PROFILE
"D2" LINE - HOUSE #3255

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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Fri, 05/May/06 09:49AM rksnyder
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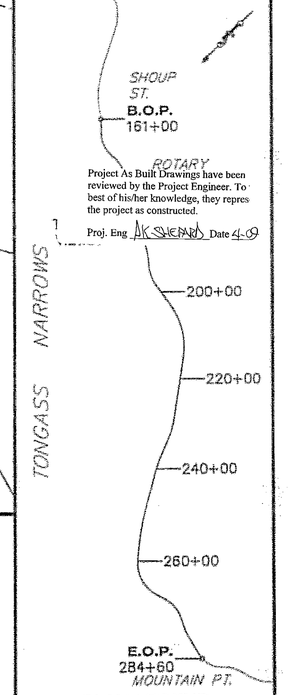
ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng AK SHEARD Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

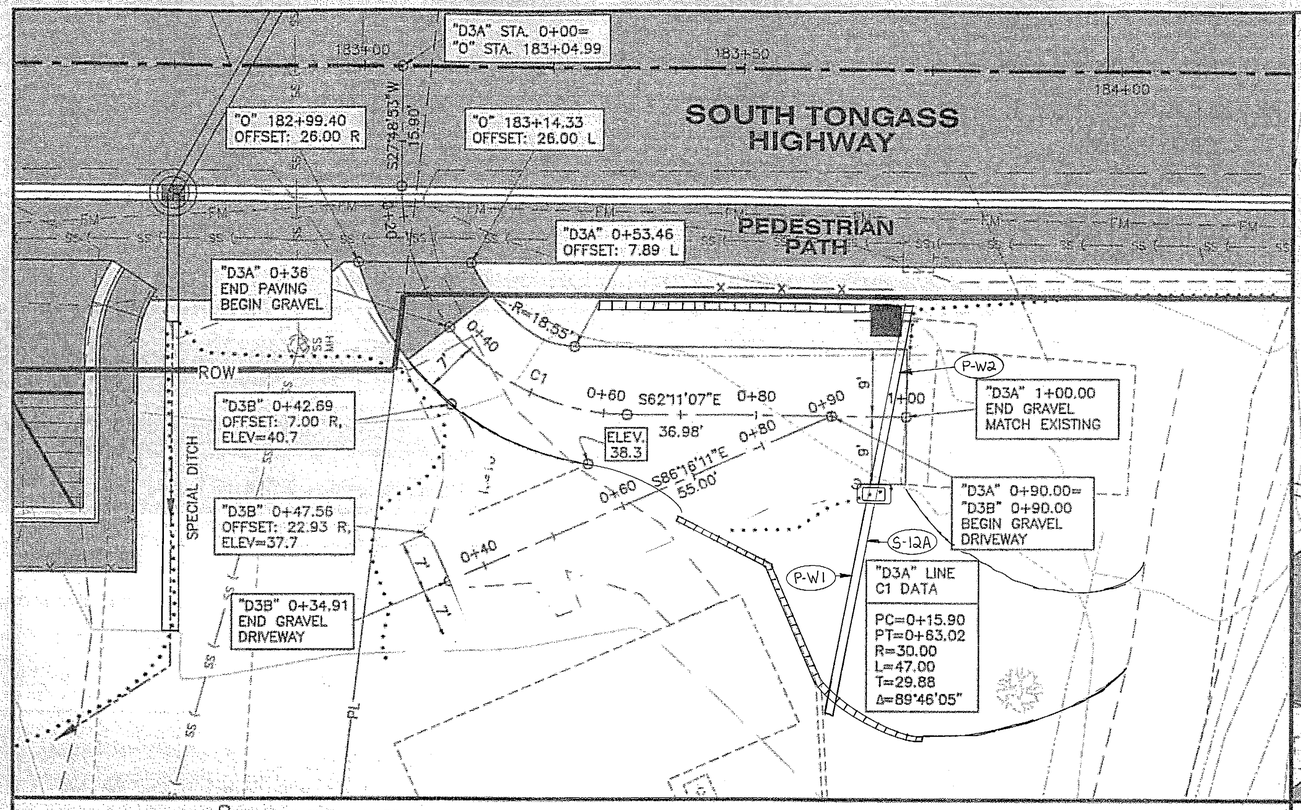
DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

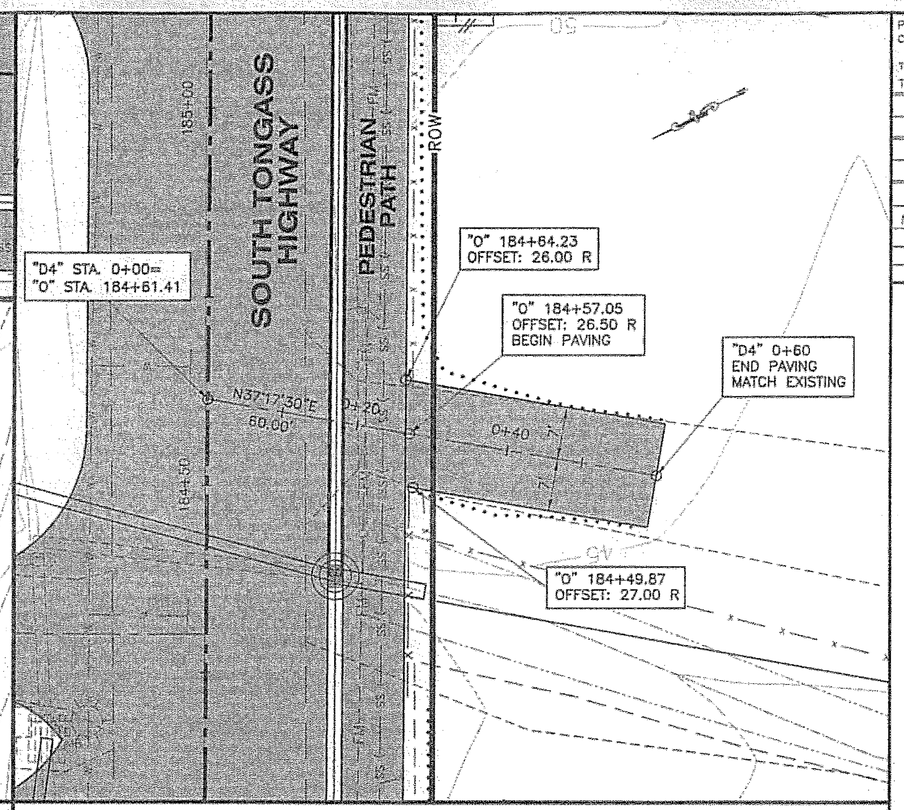
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

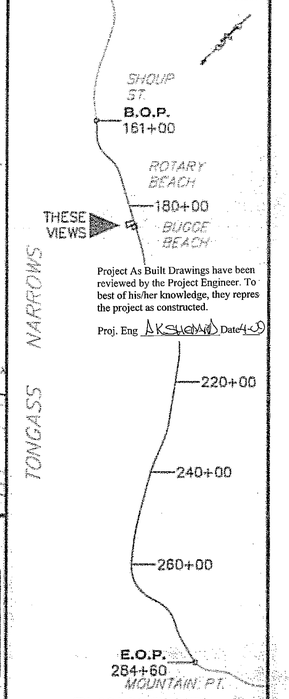
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D1 & D2 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G13	179







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Tue, 25/Apr/06 01:46PM robertson

TAB: G14

ADDENDUM NUMBER

ATTACHMENT NUMBER

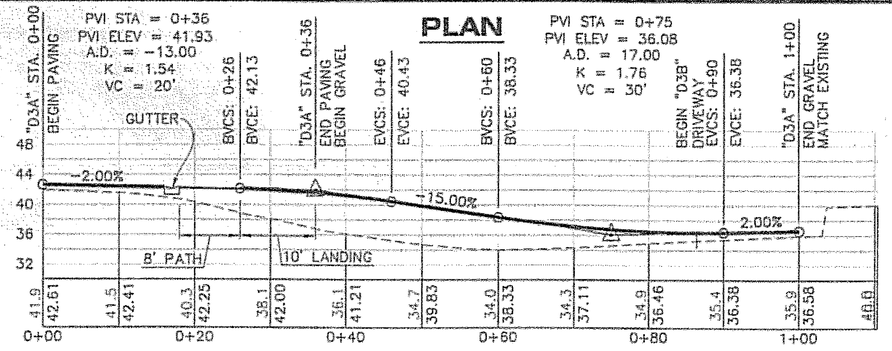
RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng A.K.Howard Date 4-26-06

PLAN

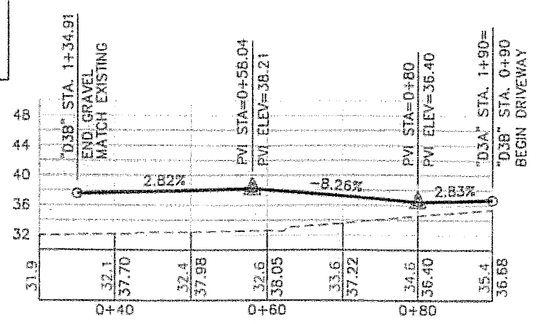


"D3A" LINE - HOUSE #3596

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 300 C.Y.



PROFILE
"D3B" LINE - HOUSE #3596

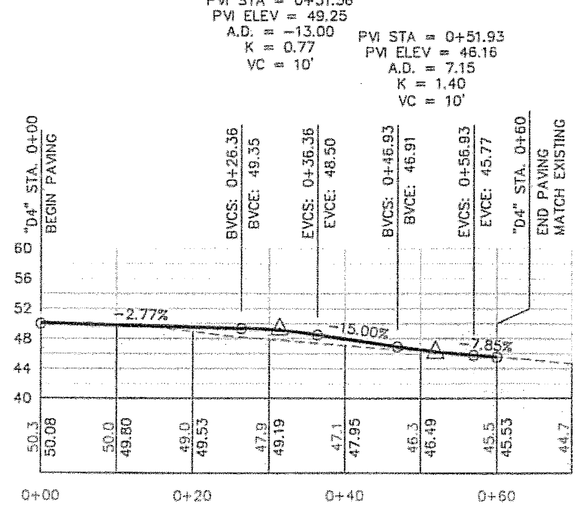
0 10 20
SCALE IN FEET

PLAN

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 30 C.Y.
(INCLUDES 5 C.Y. WASTE)

EMBANKMENT = 5 C.Y.



PROFILE
"D4" LINE - HOUSE #3623

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49TH
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

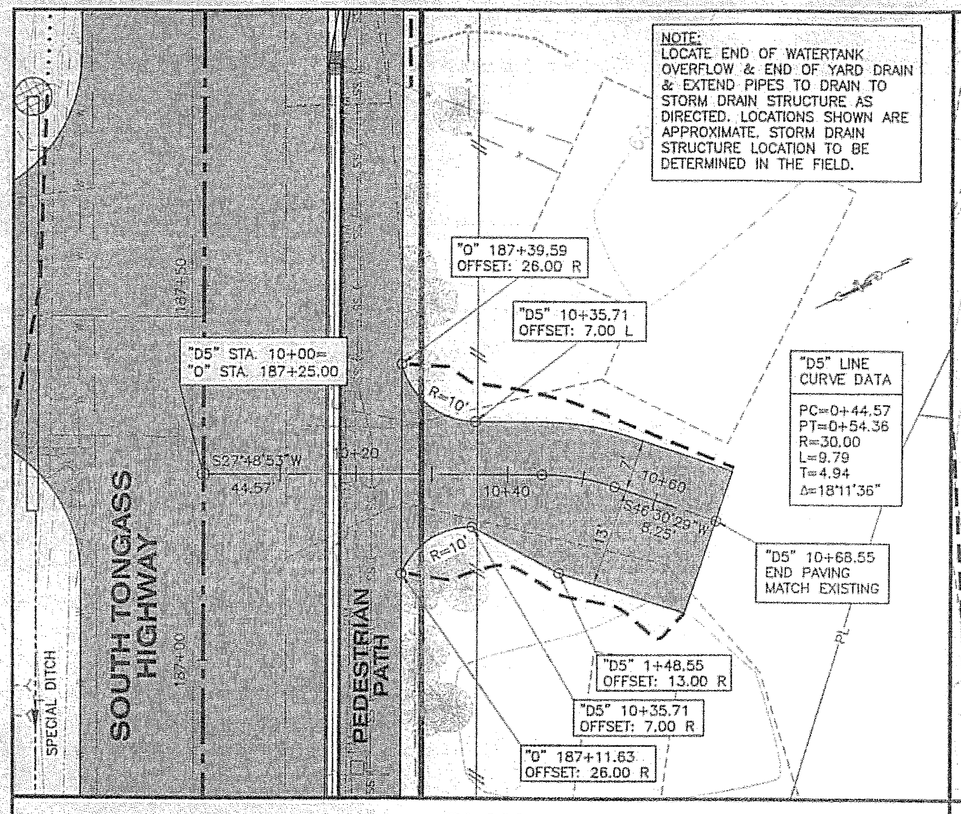
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D3 & D4 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G14	179



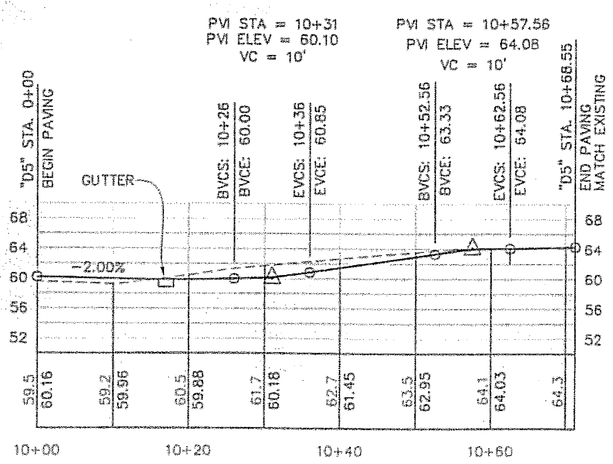
PLAN

0 10 20
SCALE IN FEET

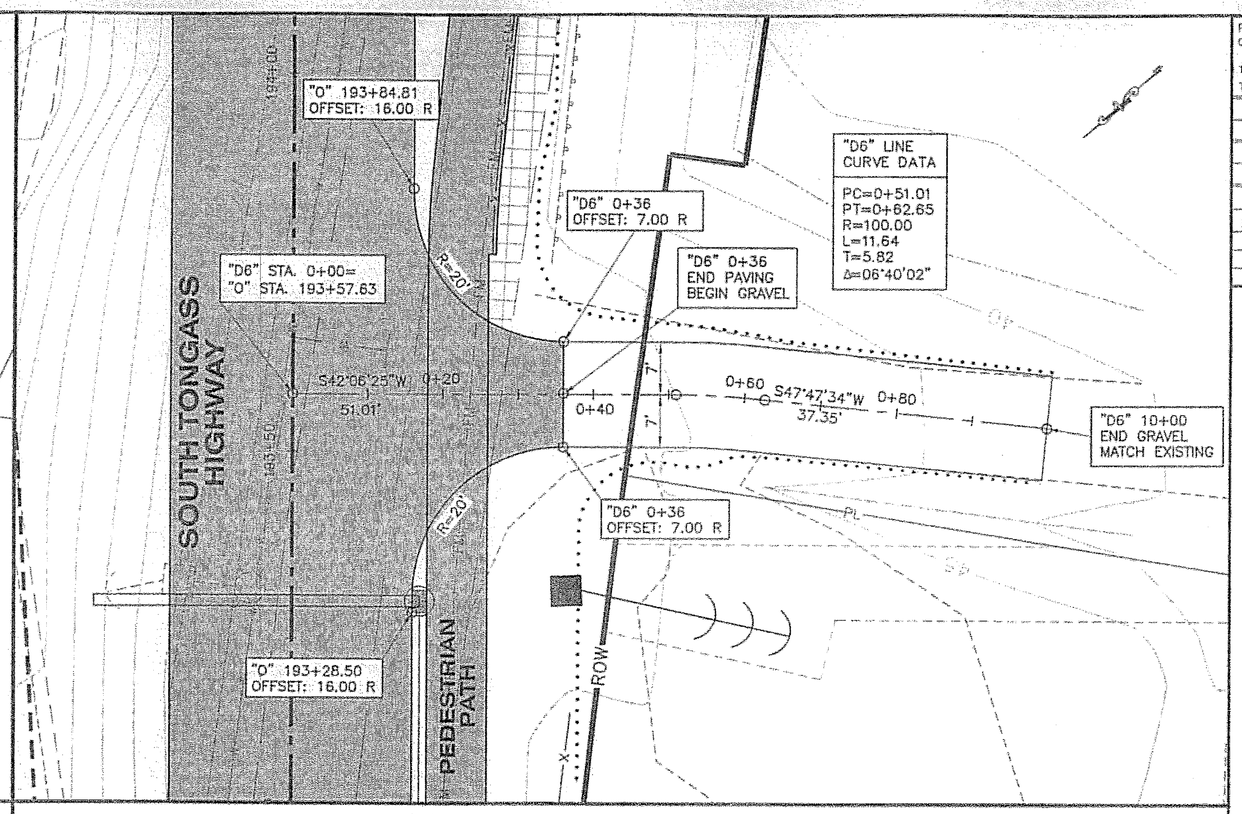
ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 25 C.Y.
(INCLUDES 5 C.Y. WASTE)

EMBANKMENT = 0 C.Y.



PROFILE
"D5" LINE - HOUSE #3678

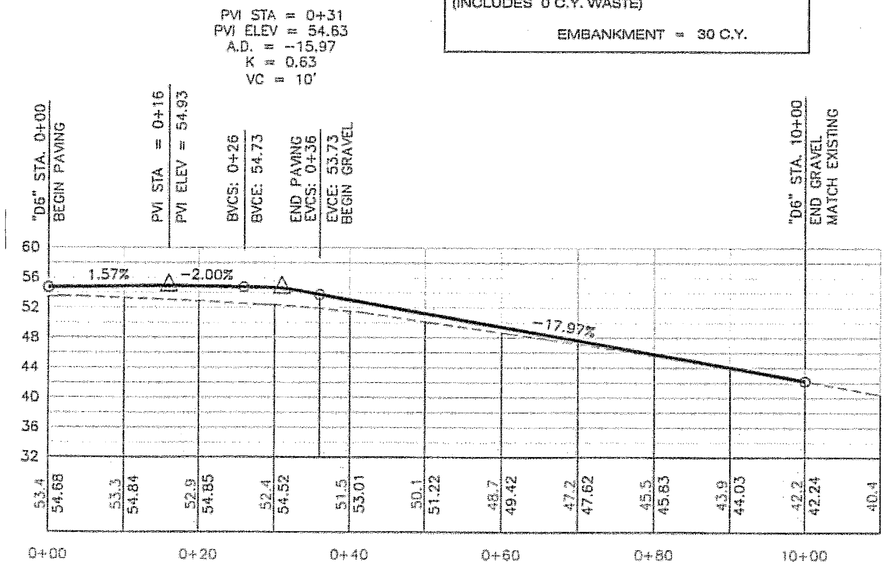


PLAN

ESTIMATED EARTHWORK QUANTITIES

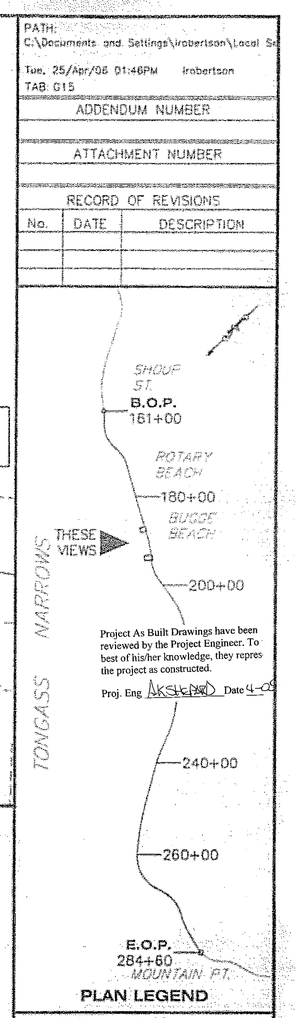
UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 30 C.Y.



PROFILE
"D6" LINE-HOUSE #3822

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN LEGEND

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Tue, 25/Apr/06 01:46PM robertson
TAB: G15

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSTEAD Date 4-26

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

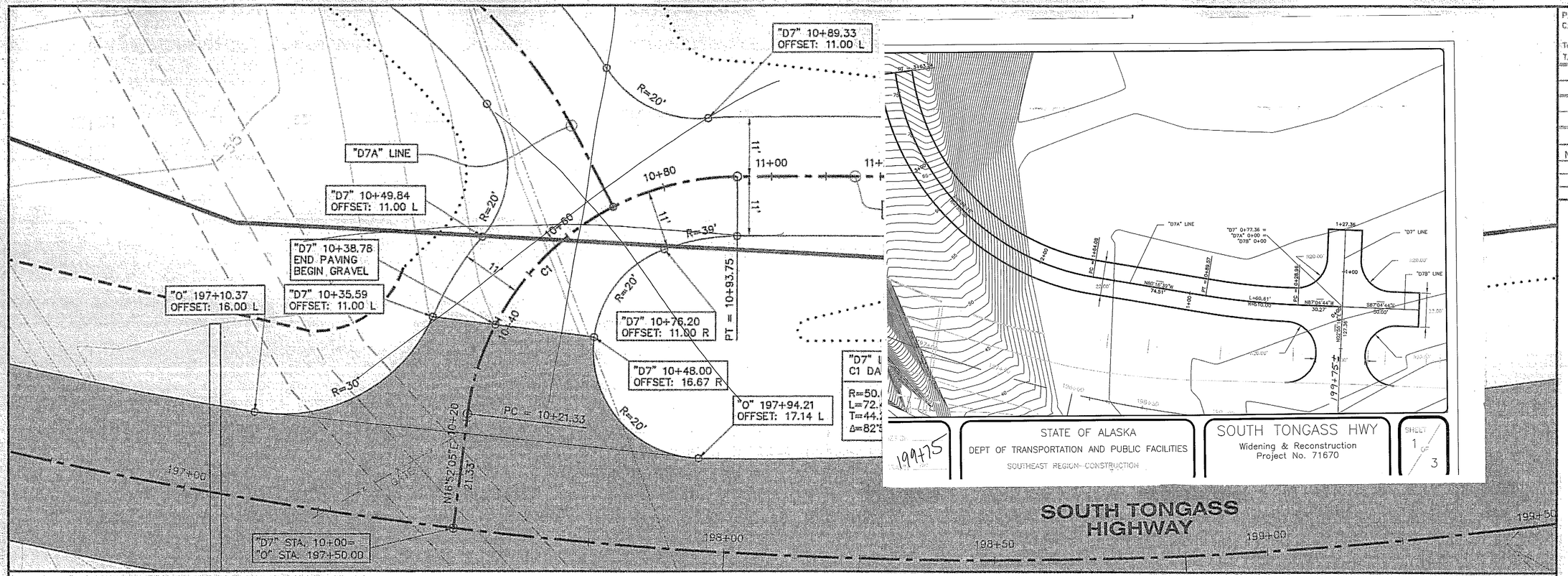
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION
PROJECT #71670

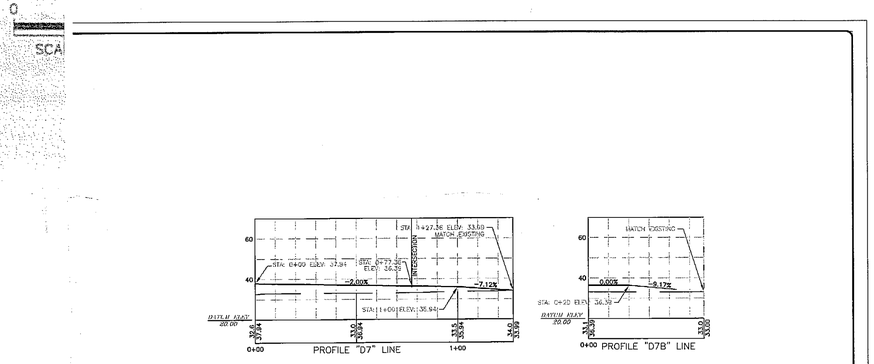
D5 & D6 DRIVEWAY PLAN & PROFILE

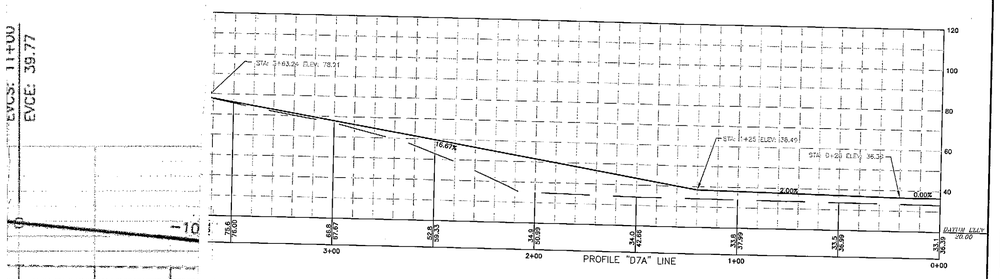
PROJECT DESIGNATION
MGS-STP-0902(20)

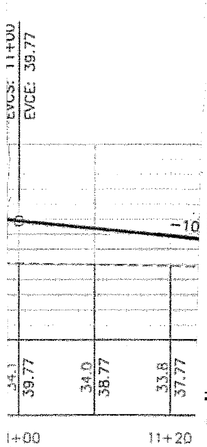
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G15	179



PLAN







PROFILE
"D7" LINE - HOUSE #3886

ESTIMATED EARTHWORK QUANTITIES

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA
DEPT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION-CONSTRUCTION

SOUTH TONGASS HWY
Widening & Reconstruction
Project No. 71670

SHEET 2 OF 3

STATE OF ALASKA
DEPT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION-CONSTRUCTION

SOUTH TONGASS HWY
Widening & Reconstruction
Project No. 71670

SHEET 3 OF 3

PATH: C:\Documents and Settings\lrobertson\Local Se
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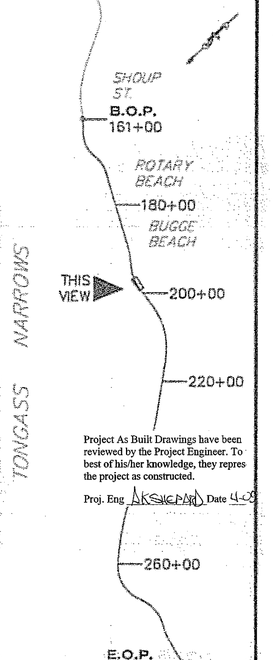
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSWCPARD Date 4-0

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

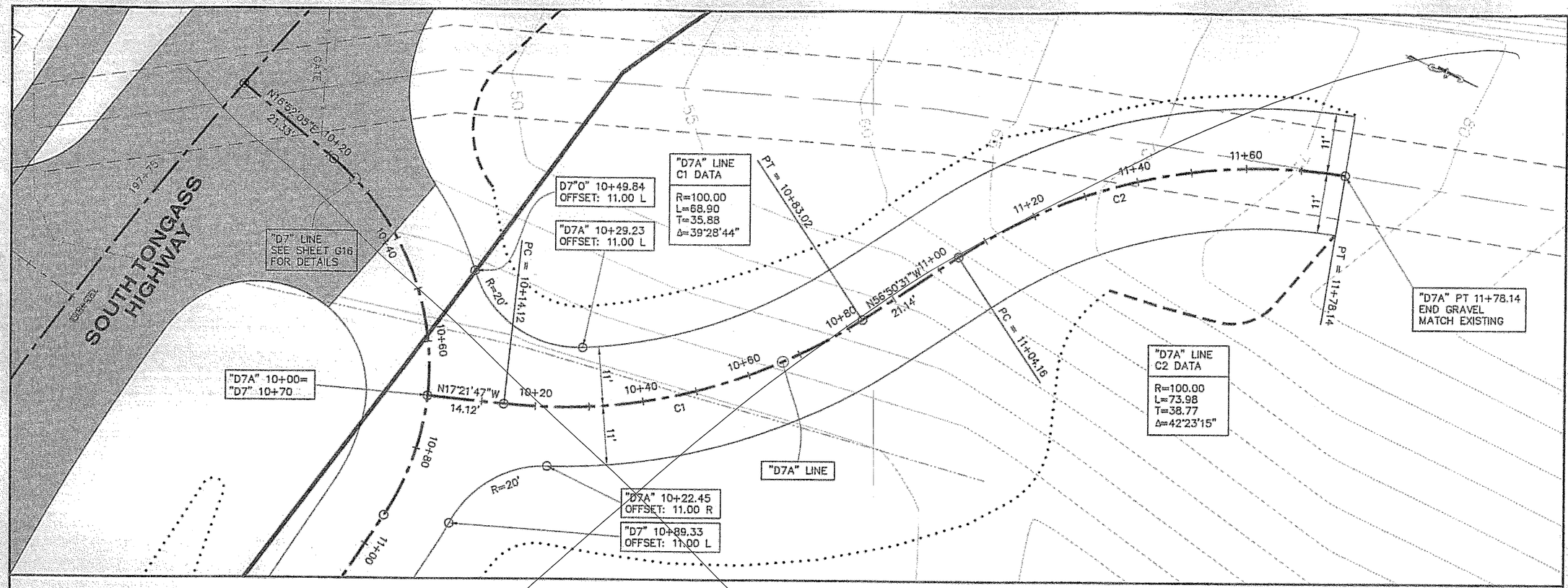
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D7 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G16	179

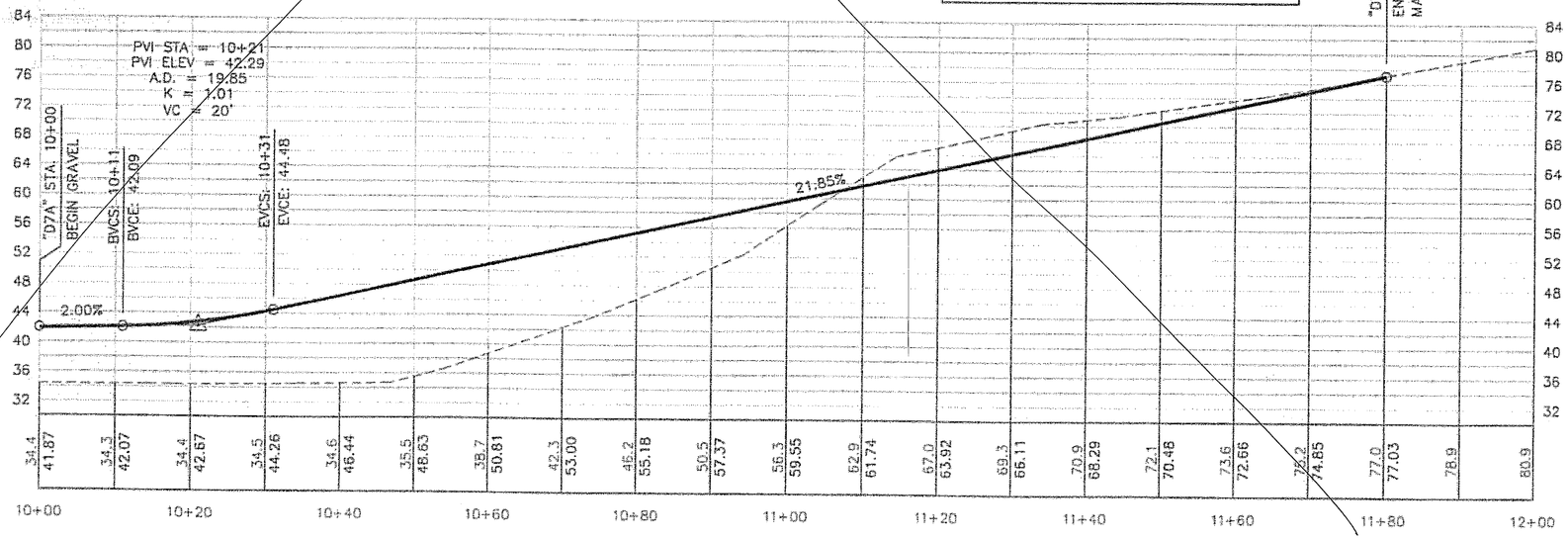


PLAN

0 10 20
SCALE IN FEET

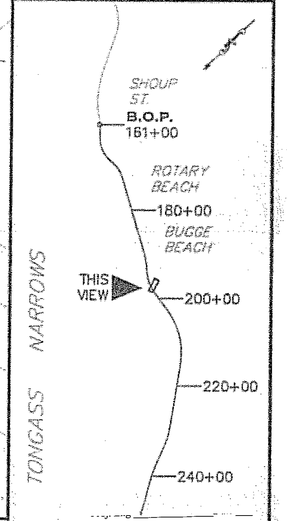
ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 230 C.Y. (INCLUDES 0 C.Y. WASTE)	
EMBANKMENT = 1370 C.Y.	



PROFILE
"D7A" LINE DRIVEWAY

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN LEGEND

PATH: C:\Documents and Settings\lrobertson\Local Se
Tue, 25/Apr/06 01:47PM lrobertson
TAB: G17

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Engr. AKSHEPARD Date 4-26-06

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

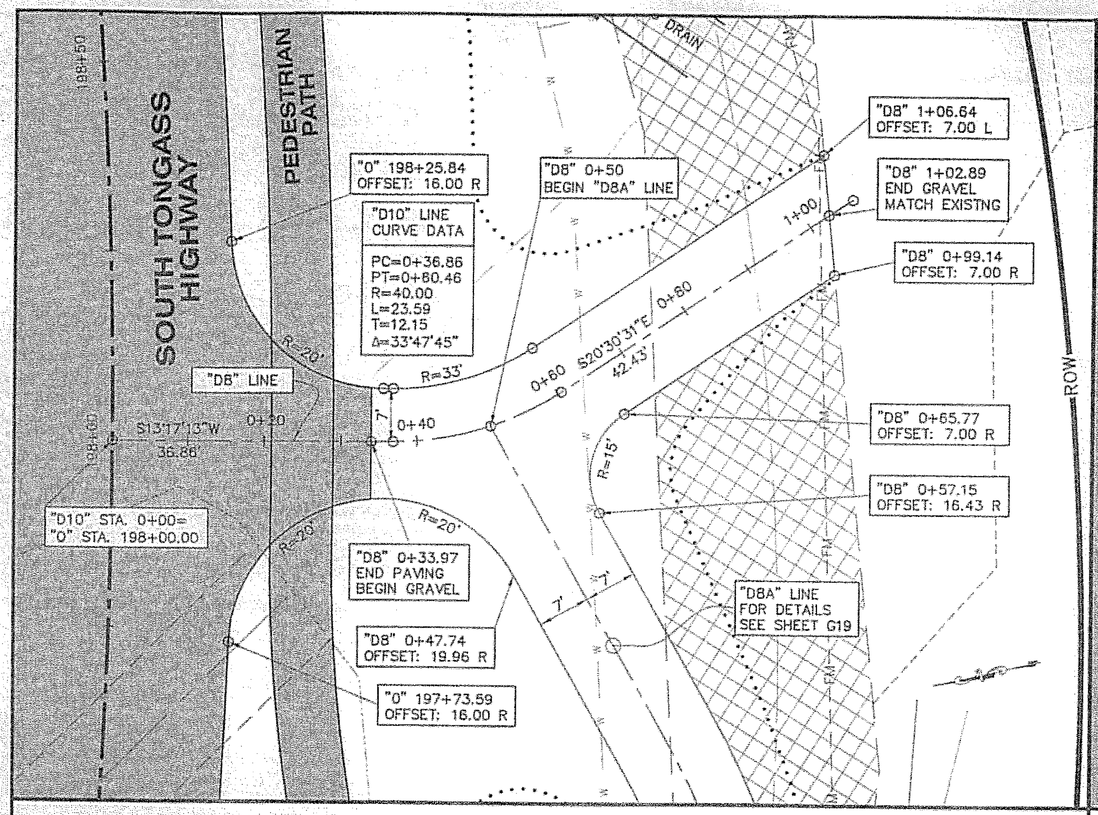
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D7A DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G17	179

SEE SHT G16



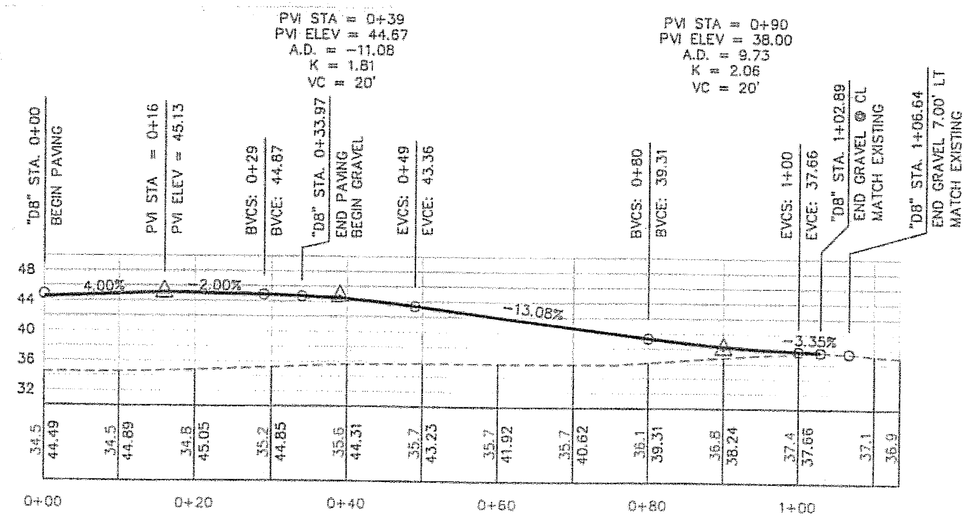
PLAN

0 10 20
SCALE IN FEET

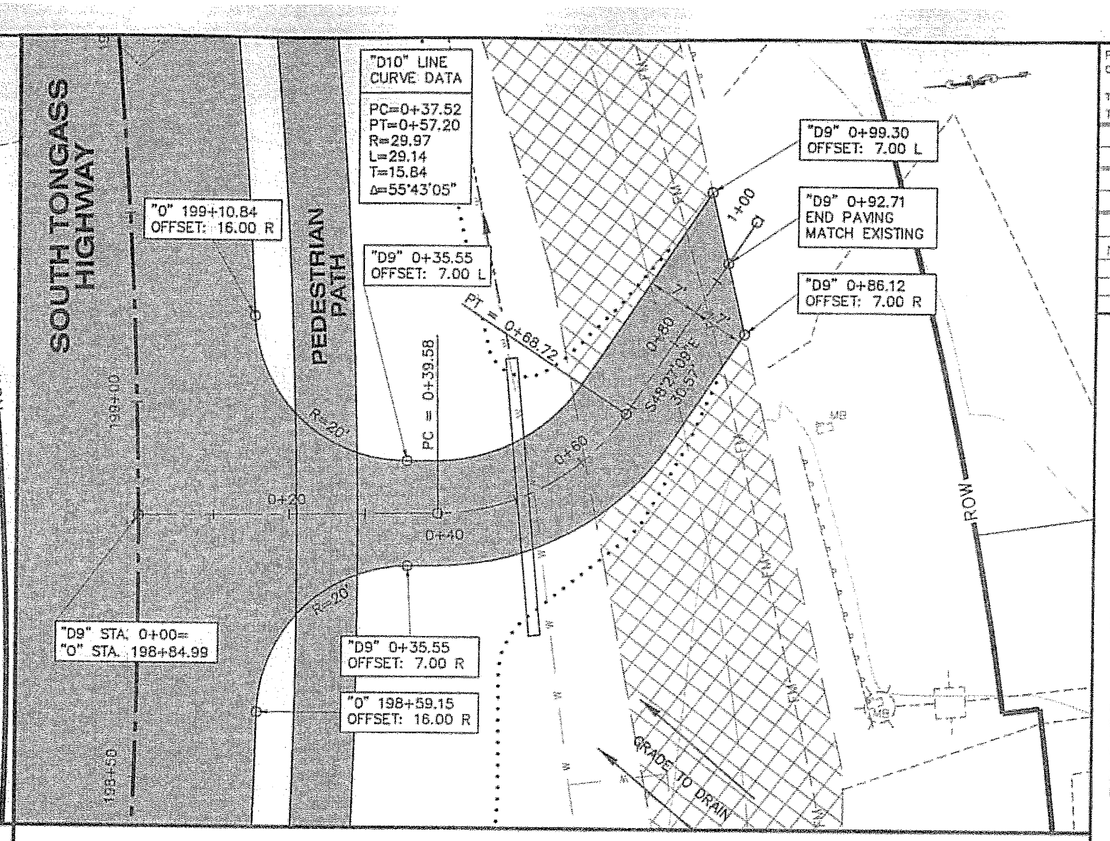
ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 250 C.Y.



PROFILE
"D8" LINE DRIVEWAY

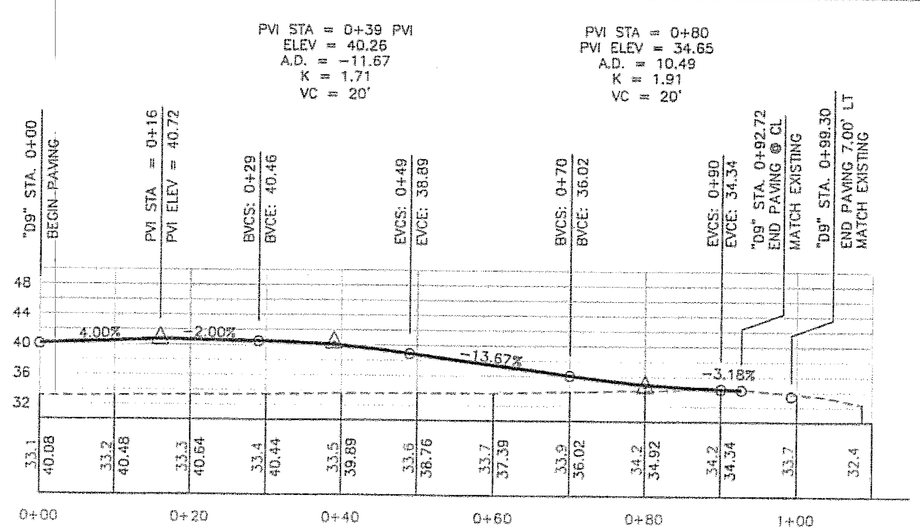


PLAN

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 230 C.Y.



PROFILE
"D9" LINE - HOUSE #3910

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: C:\Doc
Tue, 2
TAB: G

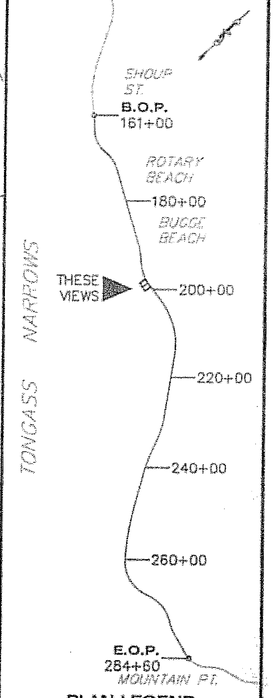
Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSnyder Date 4-26

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING
SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D8 & D9 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G18	179

"D8" 0+65.77
OFFSET 7.00 R

"D8" 0+17.12
OFFSET 7.00 L

"DBA" LINE
CURVE DATA
R=100.00
L=78.44
T=41.36
Δ=44°56'40"

ROW

"DBA" 1+60
END GRAVEL DRIVEWAY
MATCH EXISTING

0+80
1+00
1+20
1+40 N61°13'10"W 33.76'
0+60
0+40
0+20
R=15'
PT = 1+26.24
S73°50'10"W 47.80'
PC = 0+47.80
R=20'

"D8A" 10+00=
"D8" 0+50.00
BEGIN GRAVEL
DRIVEWAY

"D8" 0+18.90
OFFSET 7.00 R

GRADE TO DRAIN

"O" STA 197+19, 78.7'RT
END SPECIAL DITCH
ELEV=39.0'

"O" STA 197+07, 49.5'RT
BEGIN SPECIAL DITCH
ELEV=41.3'

"D8" 0+33.97
OFFSET 7.65 R

"O" STA 197+15, 54.4'RT
BEGIN SPECIAL DITCH
ELEV=39.4'

PEDESTRIAN
PATH

SOUTH TONGASS
HIGHWAY

198+25
197+75

NOTE:
SEE SHEETS G1A-G9
FOR PATH DETAILS

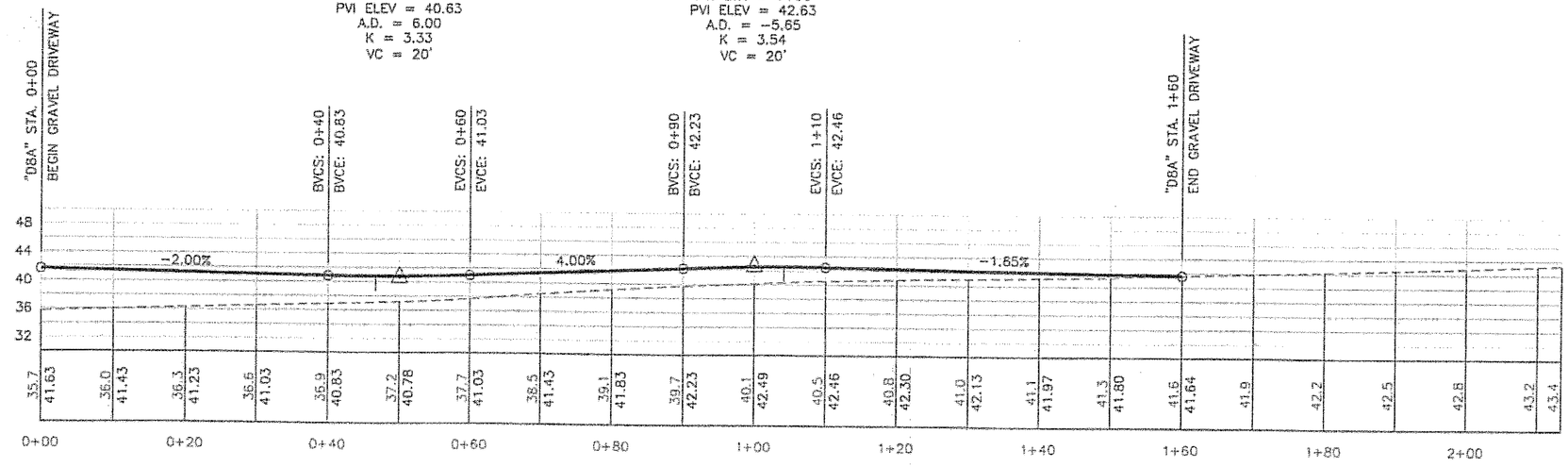
0 10 20
SCALE IN FEET

PLAN

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION = 0 C.Y. (INCLUDES 0 C.Y. WASTE)	
EMBANKMENT = 250 C.Y.	

LOW POINT ELEV = 40.76
LOW POINT STA = 0+46.67
PVI STA = 0+50
PVI ELEV = 40.63
A.D. = 6.00
K = 3.33
VC = 20'

HIGH POINT ELEV = 42.51
HIGH POINT STA = 1+04.15
PVI STA = 1+00
PVI ELEV = 42.63
A.D. = -5.65
K = 3.54
VC = 20'



PROFILE
"D8A" LINE POLE LINE ACCESS DRIVEWAY

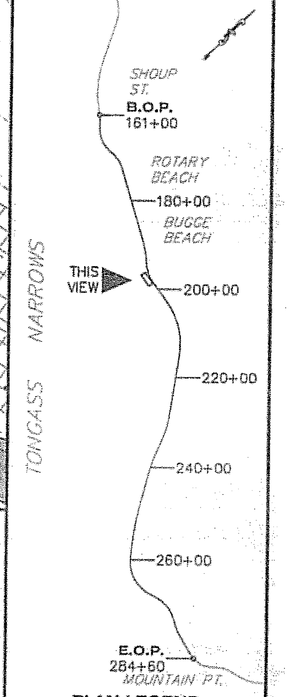
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
C:\Documents and Settings\robertson\Local Se
Tue, 25/Apr/06 01:47PM robertson
TAB: G19

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng AK-HOWARD Date 4-26

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
49th
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD
DRAWN BY: R. SNYDER

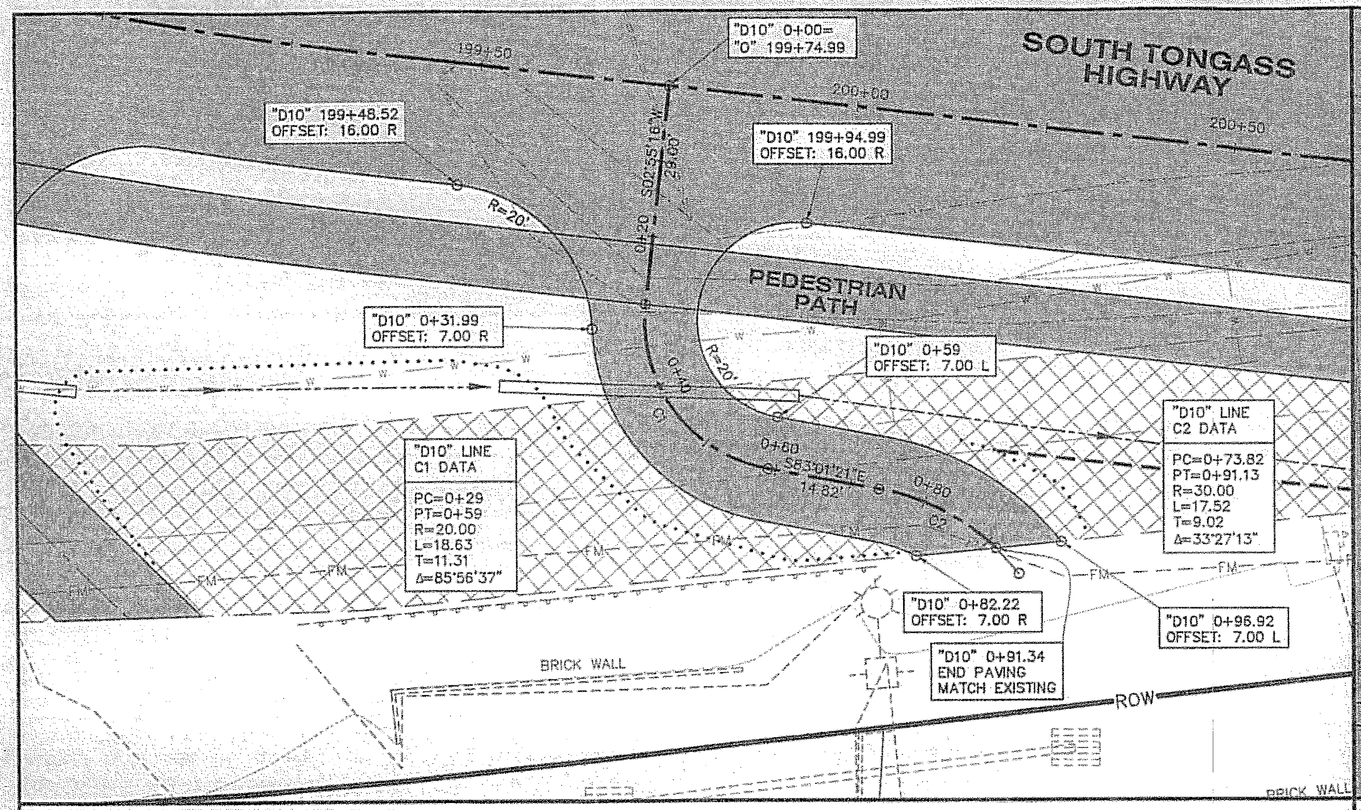
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

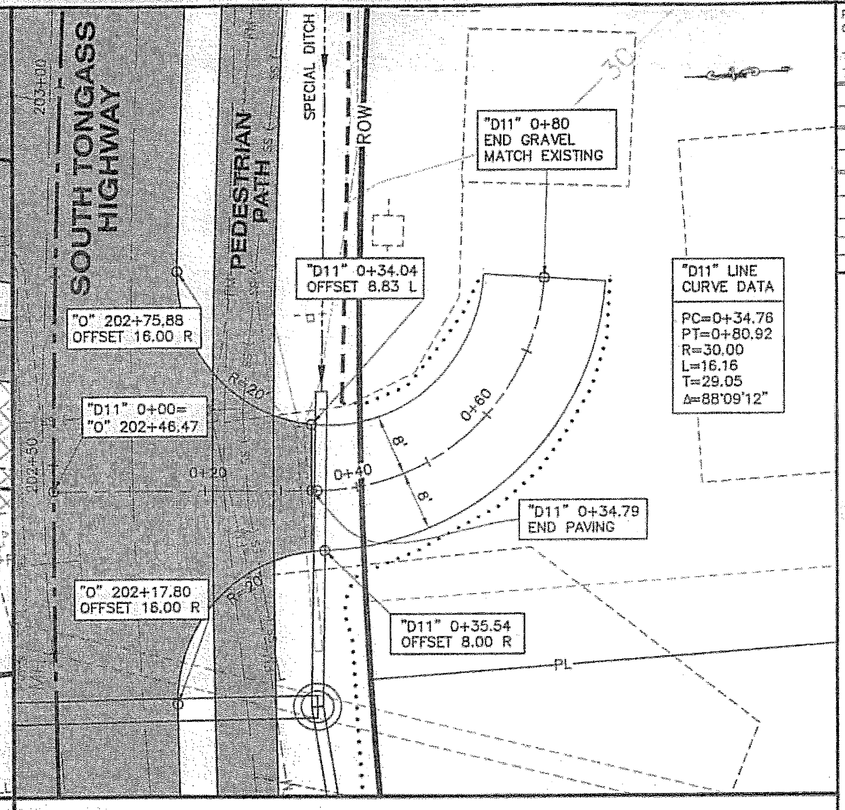
SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

D8A DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G19	179





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Tue, 25/Apr/06 01:48PM lrobertson
TAB: G20

ADDENDUM NUMBER

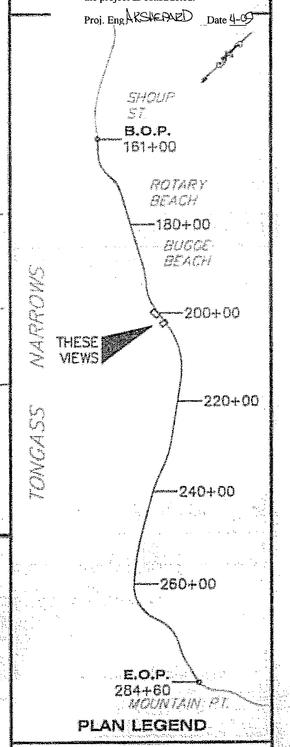
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.		DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng. ARSNEAD Date 4-06



PLAN LEGEND

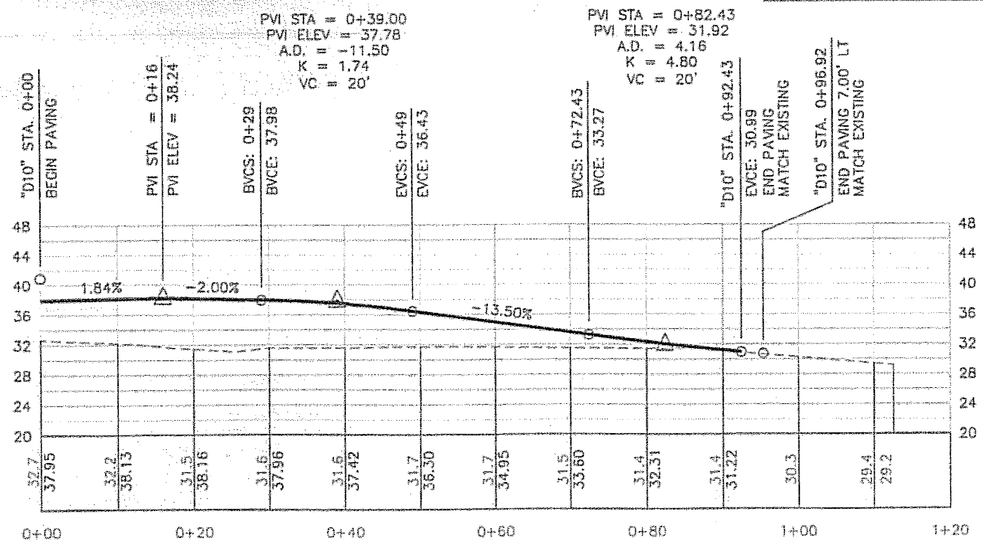
PLAN

0 10 20
SCALE IN FEET

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 175 C.Y.



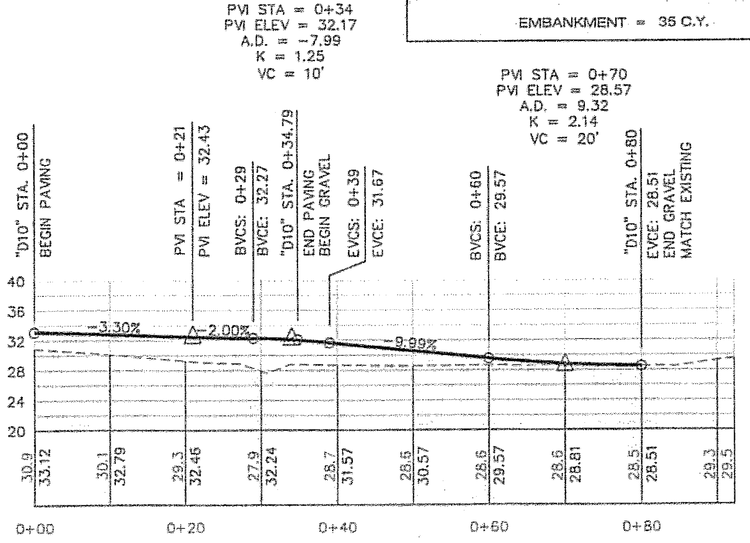
PROFILE
"D10" LINE - HOUSE #3930

PLAN

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 35 C.Y.



PROFILE
"D11" LINE - HOUSE #3974

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th
Chad A. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

DRAWN BY: R. SNYDER

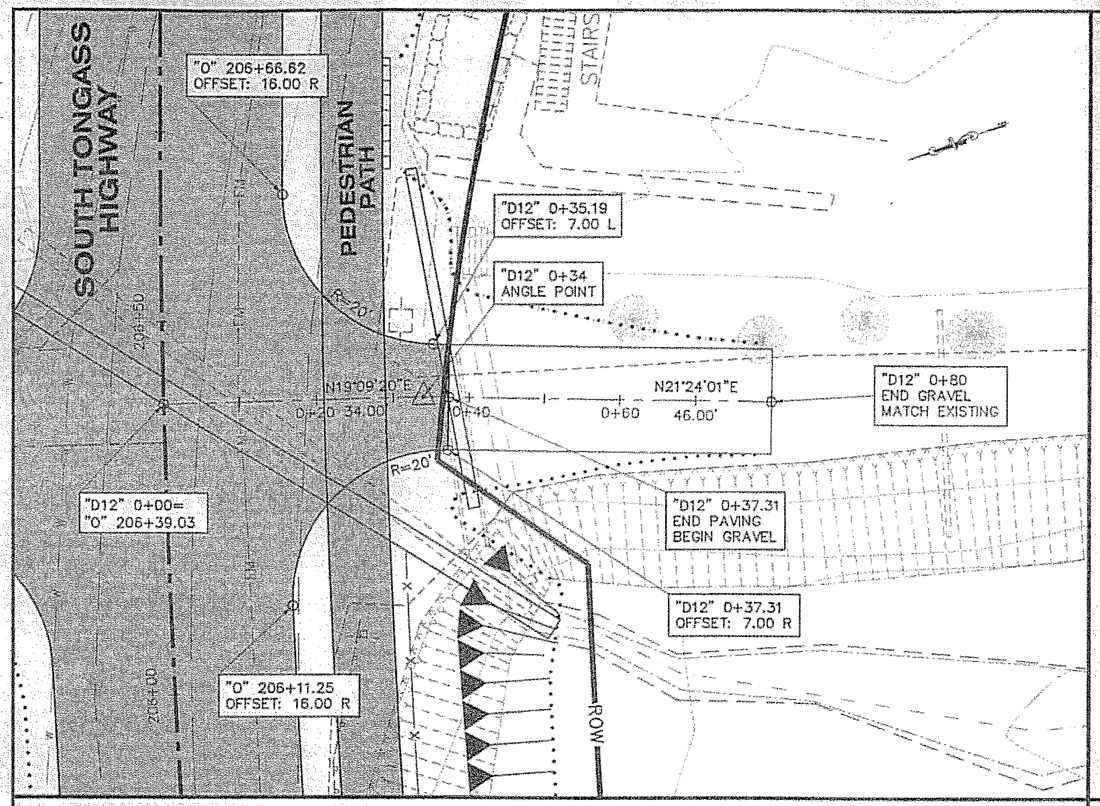
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

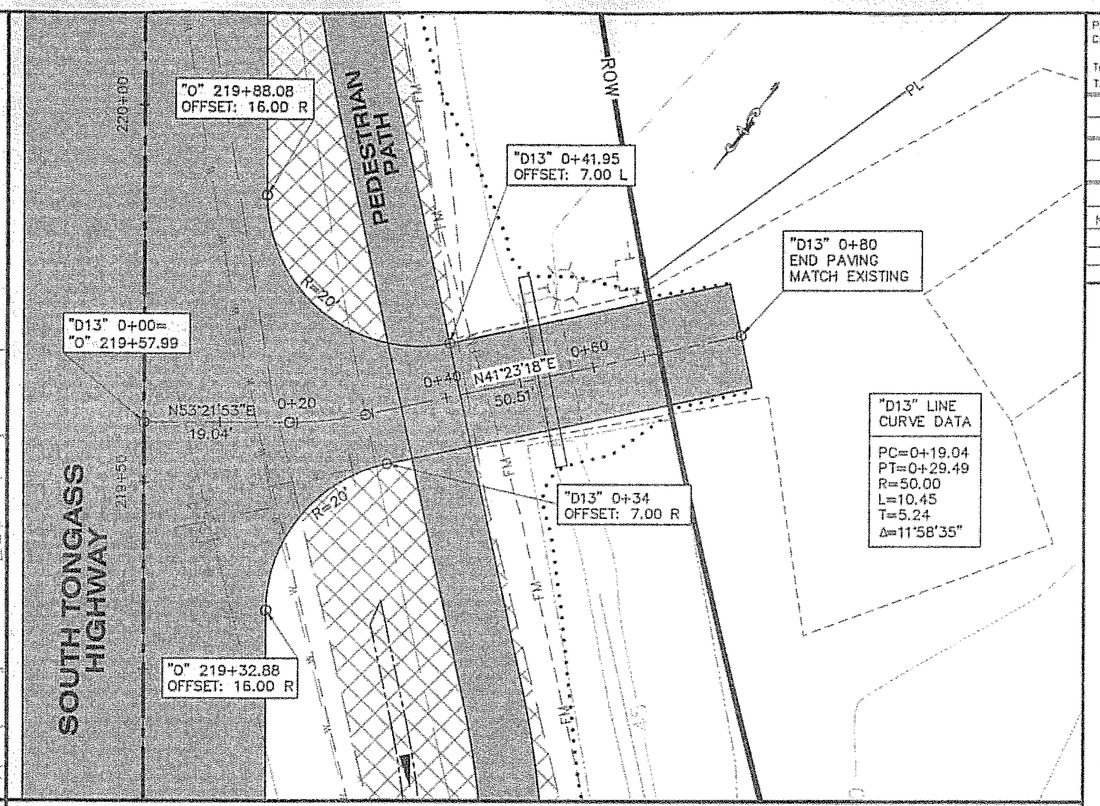
SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D10 & D11 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION
MGS-STP-0902(20)

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G20	179





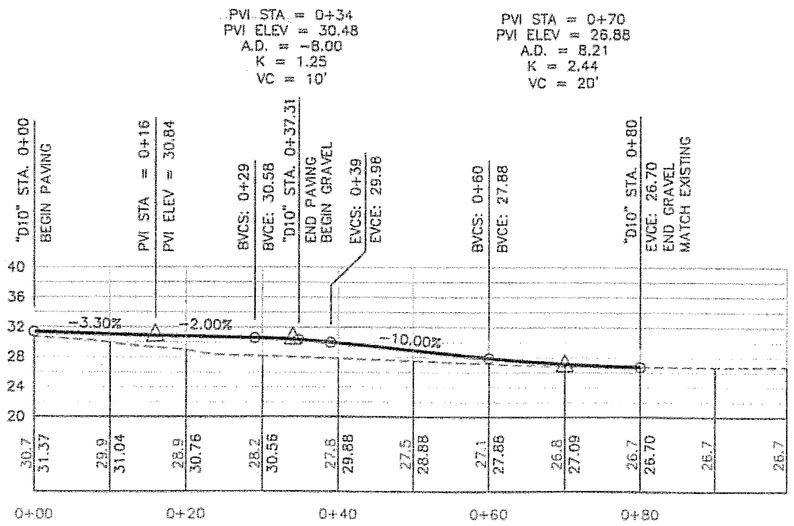
PLAN

0 10 20
SCALE IN FEET

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 80 C.Y.



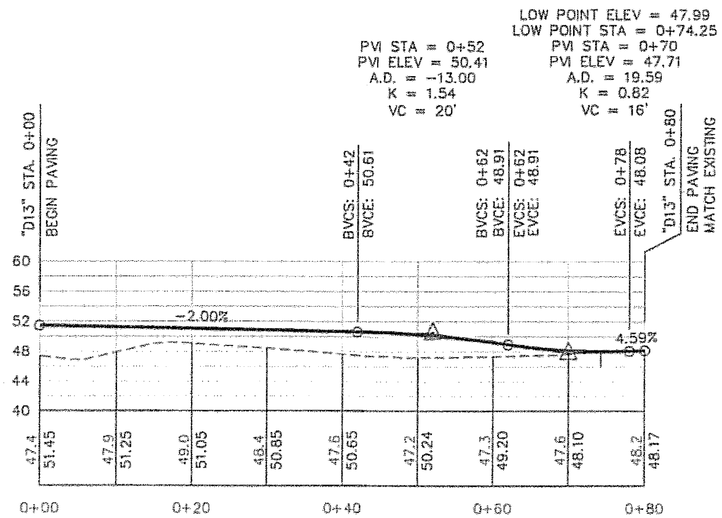
PROFILE
"D12" LINE - HOUSE #4056

PLAN

ESTIMATED EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 50 C.Y.



PROFILE
"D13" LINE - HOUSE #4284

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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Tue, 25/Apr/06 01:48PM lrobertson
TAB: G21

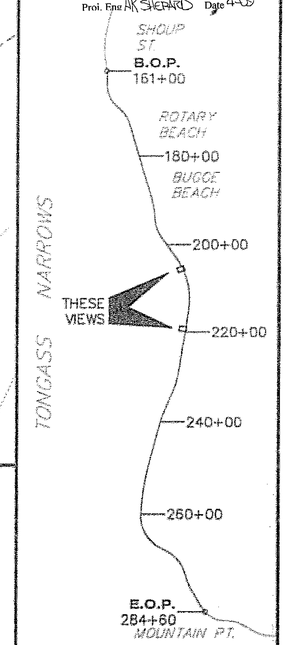
ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Engr AK SNEPARD Date 4-26



PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
4-26-06

DESIGNED BY: C. HOWARD

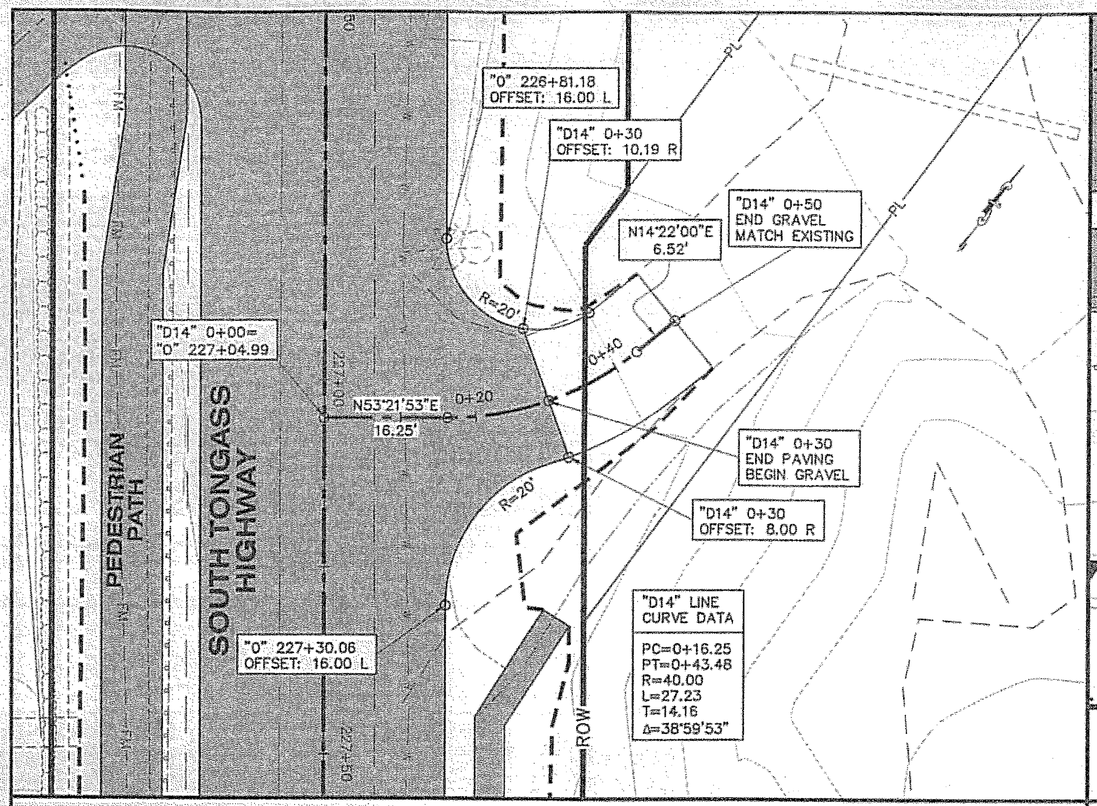
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D12 & D13 DRIVEWAY PLAN & PROFILE

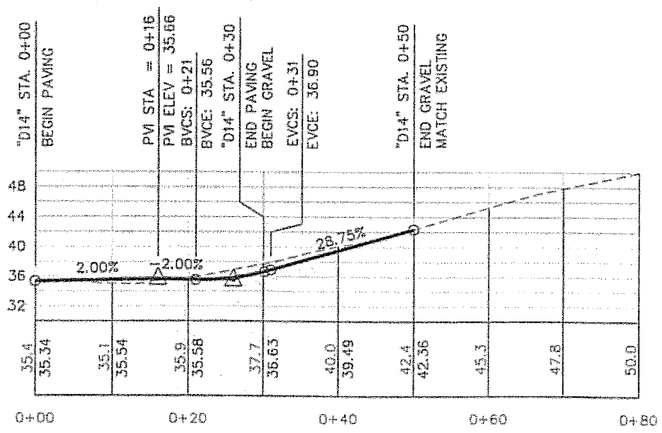
PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G21	179



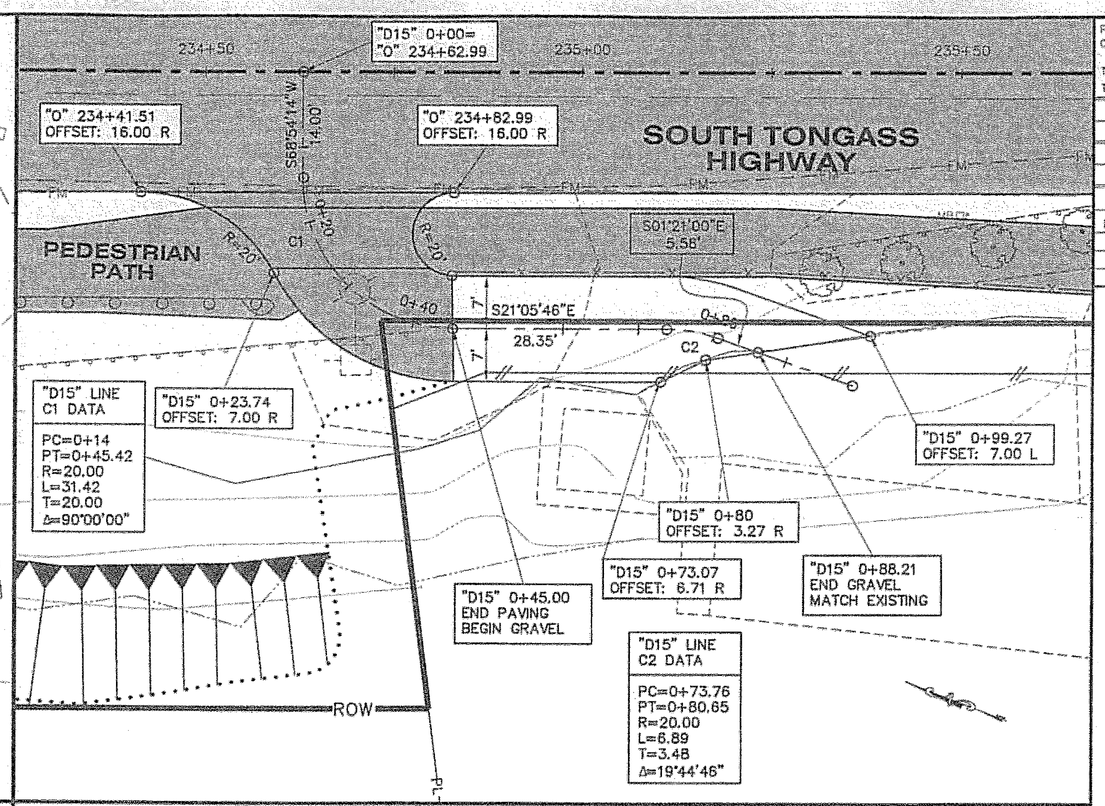
PLAN

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	= 25 C.Y.
EMBANKMENT	= 0 C.Y.

LOW POINT ELEV = 35.55
LOW POINT STA = 0+21.65
PVI STA = 0+26
PVI ELEV = 35.46
A.D. = 30.75
K = 0.33
VC = 20'



PROFILE
"D14" LINE-HOUSE #4451

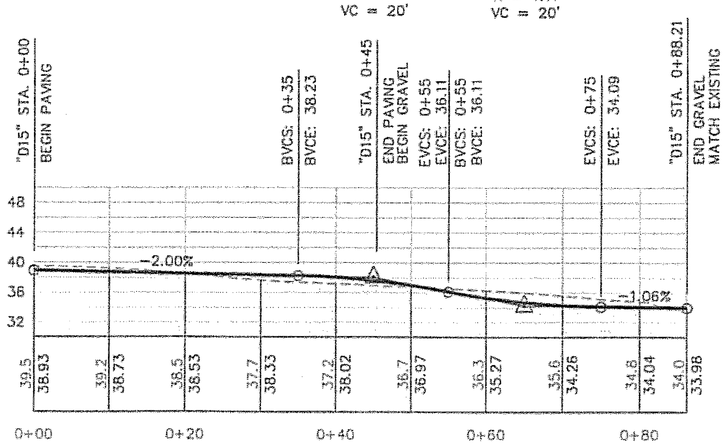


PLAN

ESTIMATED EARTHWORK QUANTITIES	
UNCLASSIFIED EXCAVATION (INCLUDES 0 C.Y. WASTE)	= 20 C.Y.
EMBANKMENT	= 10 C.Y.

PVI STA = 0+45
PVI ELEV = 38.03
A.D. = -17.15
K = 1.17
VC = 20'

PVI STA = 0+65
PVI ELEV = 34.20
A.D. = 18.09
K = 1.11
VC = 20'



PROFILE
"D15" LINE - HOUSE #4592

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:
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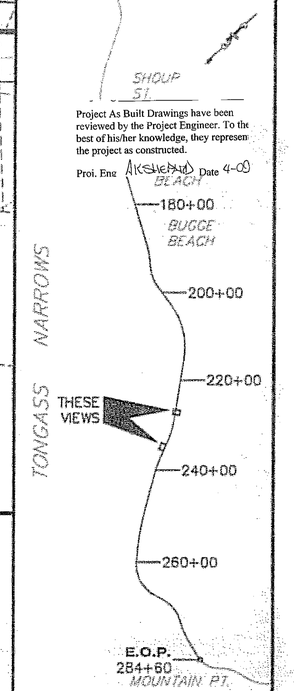
Tue, 25/Apr/06 01:48PM lrobertson
TAB: G22

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. _____ Date 4-00

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

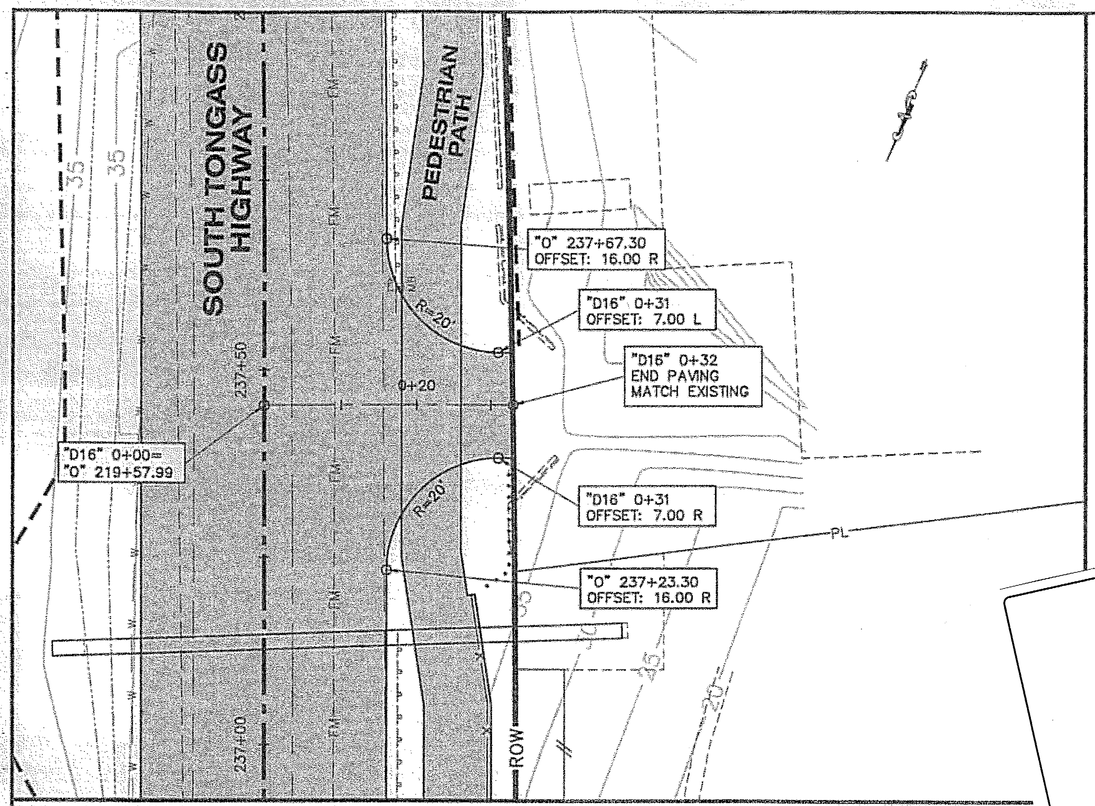
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY
WIDENING & RECONSTRUCTION
PROJECT #71670

D14 & D15 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G22	179



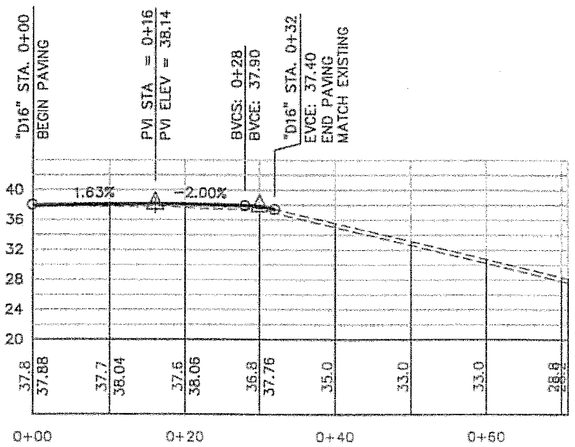
PLAN

ESTIMATED EARTHWORK QUANTITIE

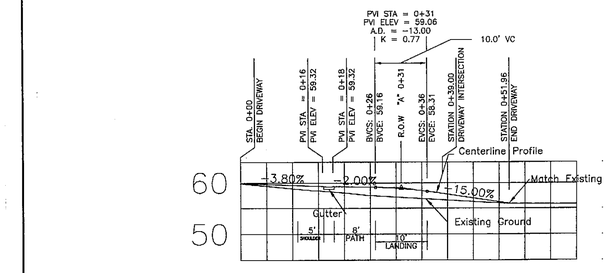
UNCLASSIFIED EXCAVATION = 0 C.Y.
(INCLUDES 0 C.Y. WASTE)

EMBANKMENT = 3 C.Y.

PVI STA = 0+30
PVI ELEV = 37.86
A.D. = -21.04
K = 0.19
VC = 4'



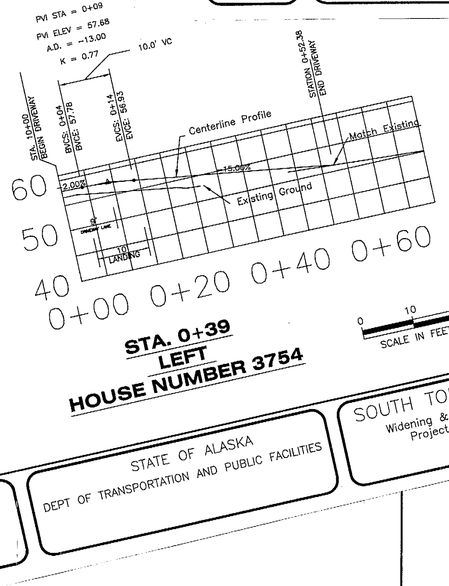
PROFILE
"D16" LINE - HOUSE #4634



STA. 'O' 191+59.78
RIGHT
HOUSE NUMBER 3754

0 10 20
SCALE IN FEET

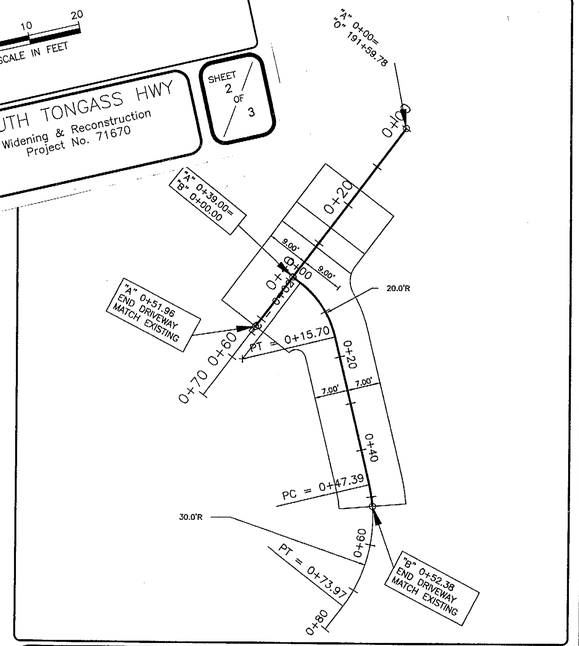
	STATE OF ALASKA DEPT OF TRANSPORTATION AND PUBLIC FACILITIES	SOUTH TONGASS HWY Widening & Reconstruction Project No. 71670	SHEET 1 OF 3



STA. 0+39
LEFT
HOUSE NUMBER 3754

0 10 20
SCALE IN FEET

	STATE OF ALASKA DEPT OF TRANSPORTATION AND PUBLIC FACILITIES	SOUTH TONGASS HWY Widening & Reconstruction Project No. 71670	SHEET 2 OF 3



	STATE OF ALASKA DEPT OF TRANSPORTATION AND PUBLIC FACILITIES	SOUTH TONGASS Widening and Reconstruction Project No. 71670/STP-0902(20)	SHEET 3 OF 3

PATH:
Q:\Ktn\71670\Planset\D_Approaches.dwg

Fri, 05/May/06 09:50AM rsnyder

TAB: G23

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

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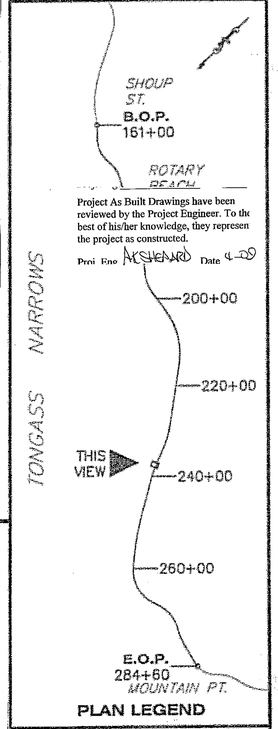


Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Engr. [illegible] Date 4-20

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA
Chad J. Howard
CE-10835
REGISTERED PROFESSIONAL ENGINEER
5-5-06

DESIGNED BY: C. HOWARD

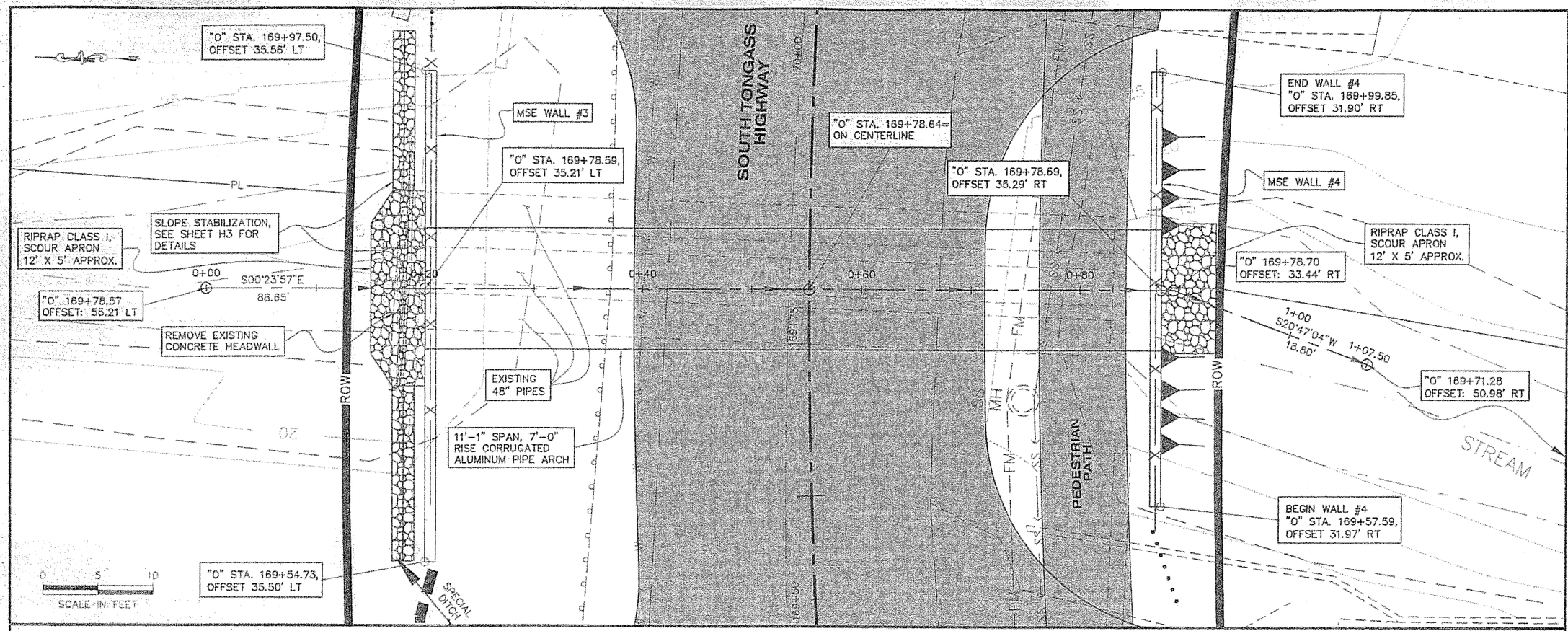
DRAWN BY: R. SNYDER

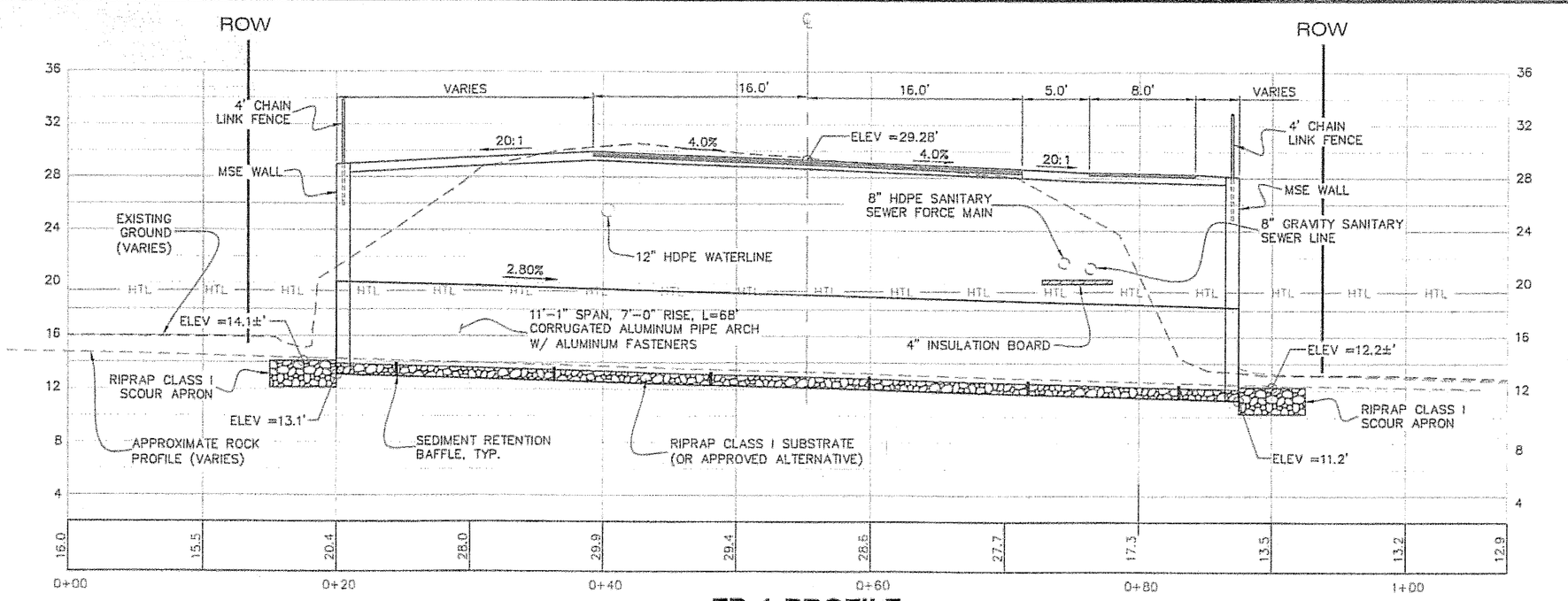
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

D16 DRIVEWAY PLAN & PROFILE

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
G23	179





FP-1 PROFILE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: O:\Ktn\71670\Planset\H_FishPipeP&P.dwg
Tue, 25/Apr/08 01:58PM Irobertson
TAB: H1

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proi. Eng A.K.SHEPARD Date 4-09

PLAN LEGEND

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th Michael W. Knapp CE-11079 REGISTERED PROFESSIONAL ENGINEER 5-5-08

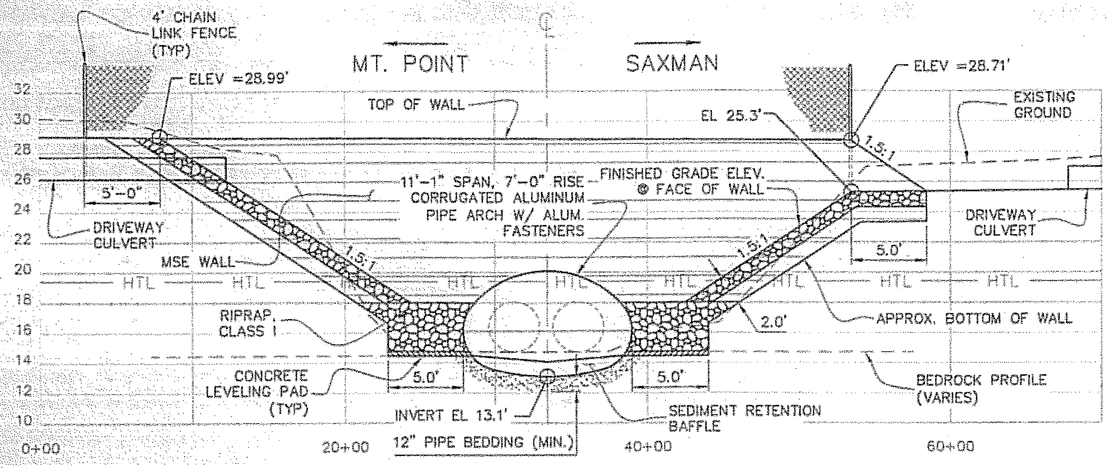
DESIGNED BY: M. KNAPP
DRAWN BY: R. SNYDER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

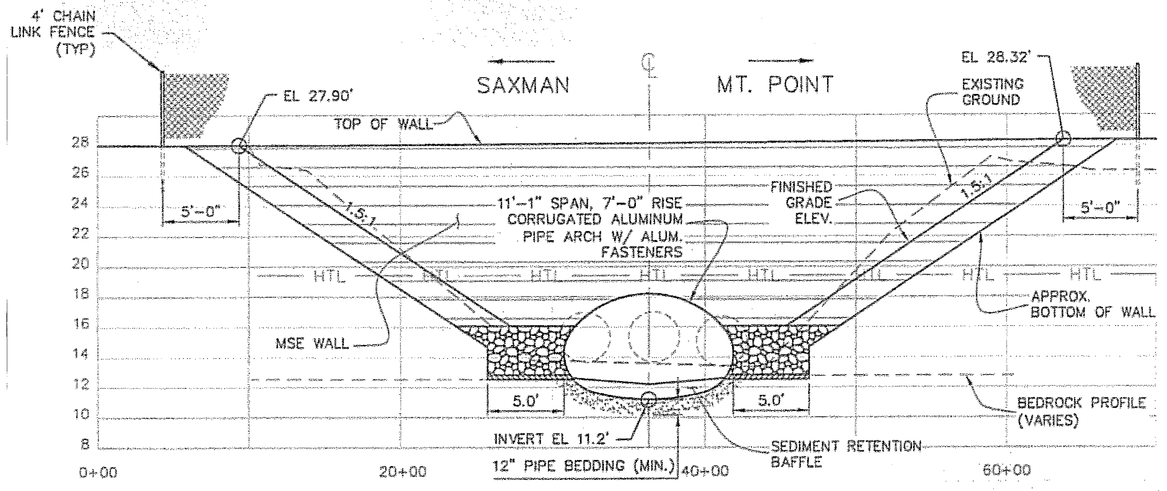
FISH PIPE 1 PLAN & SECTION

PROJECT DESIGNATION	
MGS-STP-0902(20)	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H1	179



FISH PIPE 1, WALL #3
UPSTREAM END

AREA OF MSE WALL #3 = 430 ft^2



FISH PIPE 1, WALL #4
DOWNSTREAM END

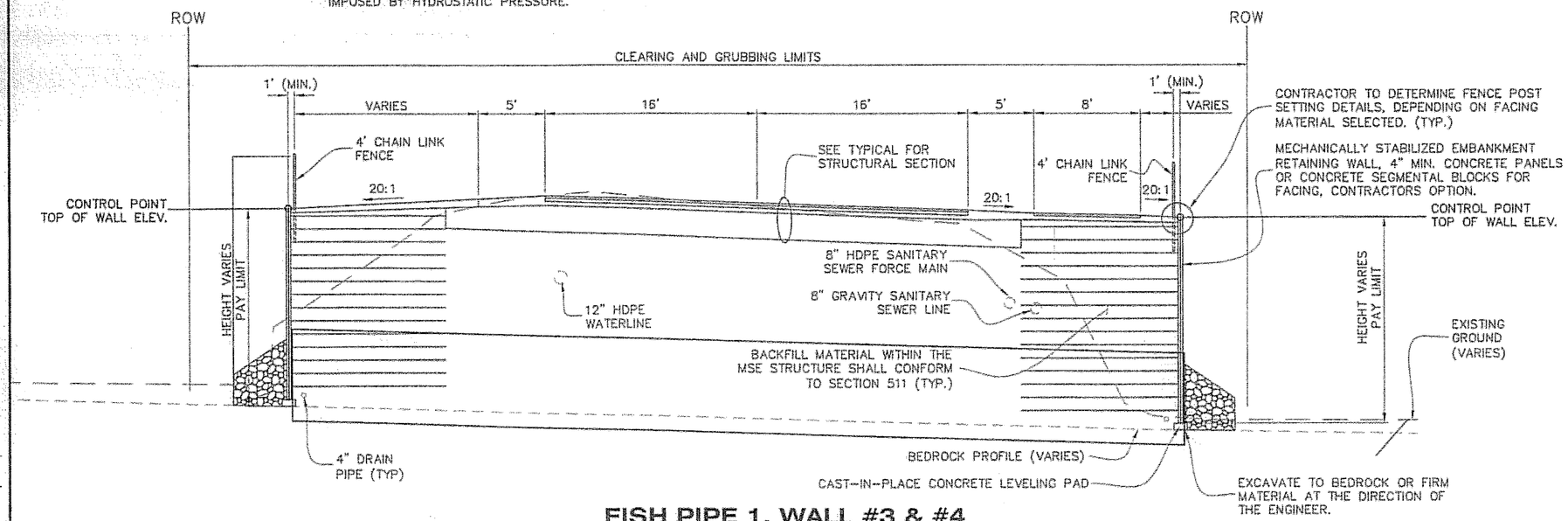
AREA OF MSE WALL #4 = 512 ft^2

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AK SHEPARD Date 4-09

RETAINING WALL NOTES:

1. CONSTRUCT CONCRETE LEVELING PAD FOR MSE WALL FOUNDATION.
2. CONSTRUCT MSE WALL WITH NON-FERROUS SOIL REINFORCEMENT. PLACE FILTER FABRIC BEHIND FACING TO ELEVATION 22.0'
3. EXTEND RIPRAP OUTLET APRON TO ROW.
4. TRIM PANELS OR BLOCKS PER MANUFACTURER'S RECOMMENDATIONS.
5. RETAINING WALLS ARE LOCATED IN AN AREA OF TIDAL INFLUENCE. DESIGN ETAINING WALLS TO ACCOUNT FOR THE ADDITIONAL LOAD IMPOSED BY HYDROSTATIC PRESSURE.



FISH PIPE 1, WALL #3 & #4
WALL SECTION

HYDRAULIC SUMMARY

DESCRIPTION	QUANTITIES
CULVERT (SPAN & RISE)	11'-1" x 7'-0"
LENGTH	~~96'~~ 67.9
MATERIAL	ALUMINUM
SLOPE (%)	2.8%
DRAINAGE AREA	0.67 SQ. MILES
DESIGN DISCHARGE Q50	350 CFS
DESIGN HEADWATER ELEVATION	0.67 SQ. MILES
INLET INVERT ELEVATION	13.1
OUTLET INVERT ELEVATION	11.2
DISCHARGE @ HW/D=1.0	425 CFS
RIPRAP OUTLET APRON	CLASS I
RIPRAP PLACED INSIDE CULVERT	CLASS I OR APPROVED ALTERNATIVE
PURPOSE: STREAM CROSSING WITH FISH PASSAGE PROVISIONS.	
WORK WINDOW:	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL
DESIGNED BY: M. KNAPP
DRAWN BY: R. SNYDER

STATE OF ALASKA
Michael W. Knapp
CE-11079
REGISTERED PROFESSIONAL ENGINEER
5-5-06

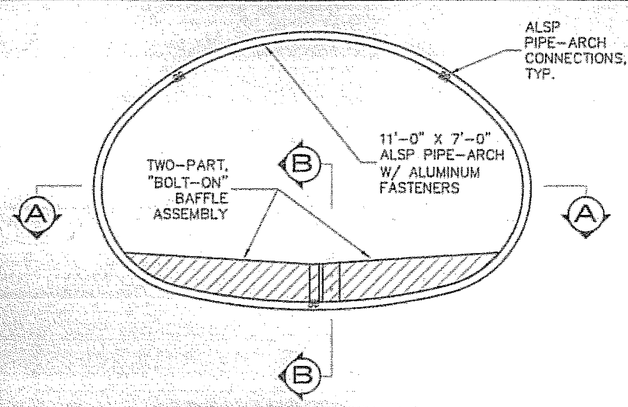
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

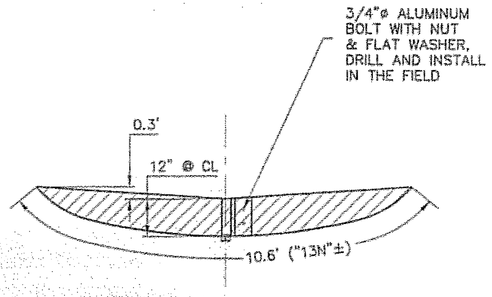
FISH PIPE 1 DETAILS

PATH: O:\Kln\71670\Plotset\H_FishPipeP&P.dwg
TAB: H2 Thu, 20/Apr/06 03:41PM krobertson

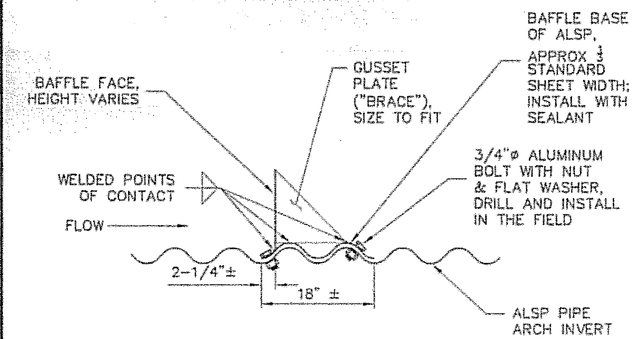
REVISIONS NO.	DATE	DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			MGS-STP-0902(20)	2006	H2	179



TWO-PIECE BAFFLE ASSEMBLY



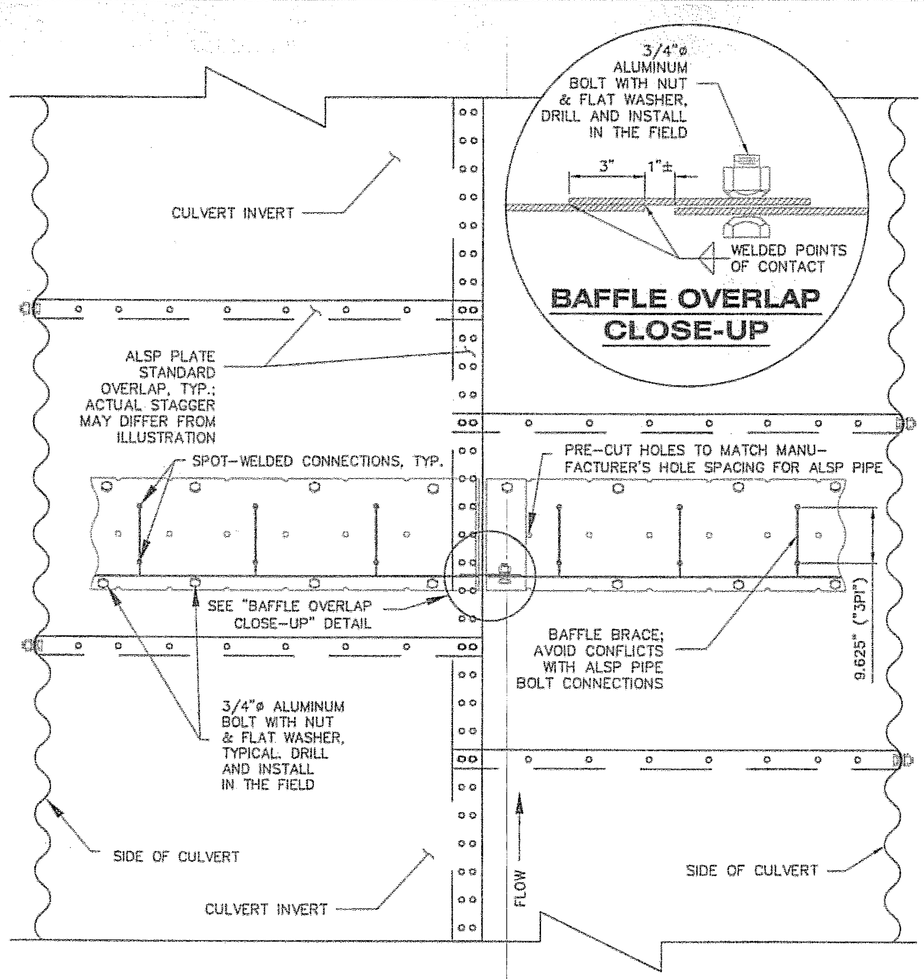
BAFFLE DETAIL



BAFFLE SECTION B-B

BAFFLE NOTES:

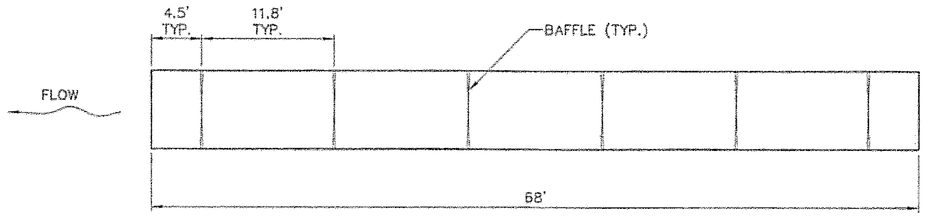
1. ALL BAFFLES AND BRACES SHALL BE MANUFACTURED FROM ¼" SHEET MATERIAL.
2. EACH BAFFLE SHALL HAVE A MINIMUM OF 6 BRACES.
3. ALL DIMENSIONS ON THIS SHEET ARE NOMINAL- BAFFLES SHALL BE MANUFACTURED TO FIT PARTICULAR PIPE.



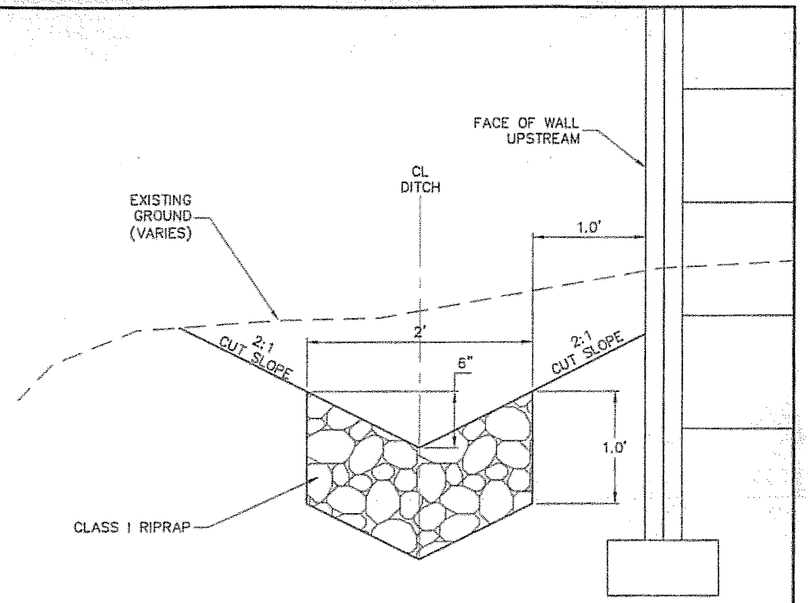
BAFFLE SECTION A-A

BAFFLE NOTES:

1. BAFFLE-PIPE INTERFACE SHALL BE WATER-TIGHT TO THE EXTENT PRACTICABLE. USE MASTIC/SEALANT AT CONNECTIONS THAT IS COMPATIBLE (AND NON-CORROSIVE) TO THE ALSP ARCH AND APPURTENANT HARDWARE.



TYPICAL BAFFLE PLAN LAYOUT



SLOPE STABILIZATION DETAIL

UPSTREAM END ONLY

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng A.R. Skemp Date 4-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. CARROLL

STATE OF ALASKA 49th Michael W. Knapp CE-11079 REGISTERED PROFESSIONAL ENGINEER 6-5-06

DESIGNED BY: M. KNAPP
DRAWN BY: M.K./R.S.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

SOUTH TONGASS HIGHWAY WIDENING & RECONSTRUCTION PROJECT #71670

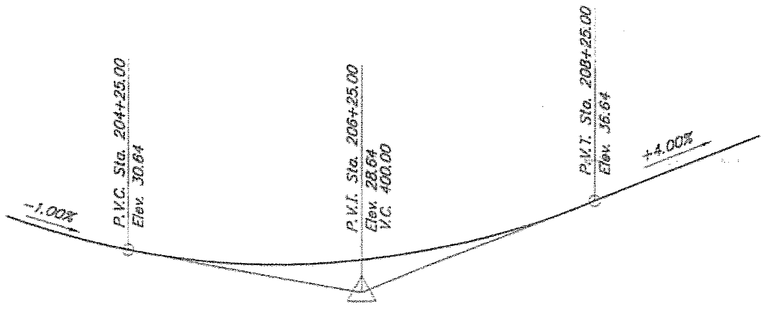
FISH PIPE 1 DETAILS

PATH: Q:\Ktn\71670\Planset\H_FishPipeP&P.dwg
TAB: H3 Thu, 20/Apr/06 03:41PM lrobertson

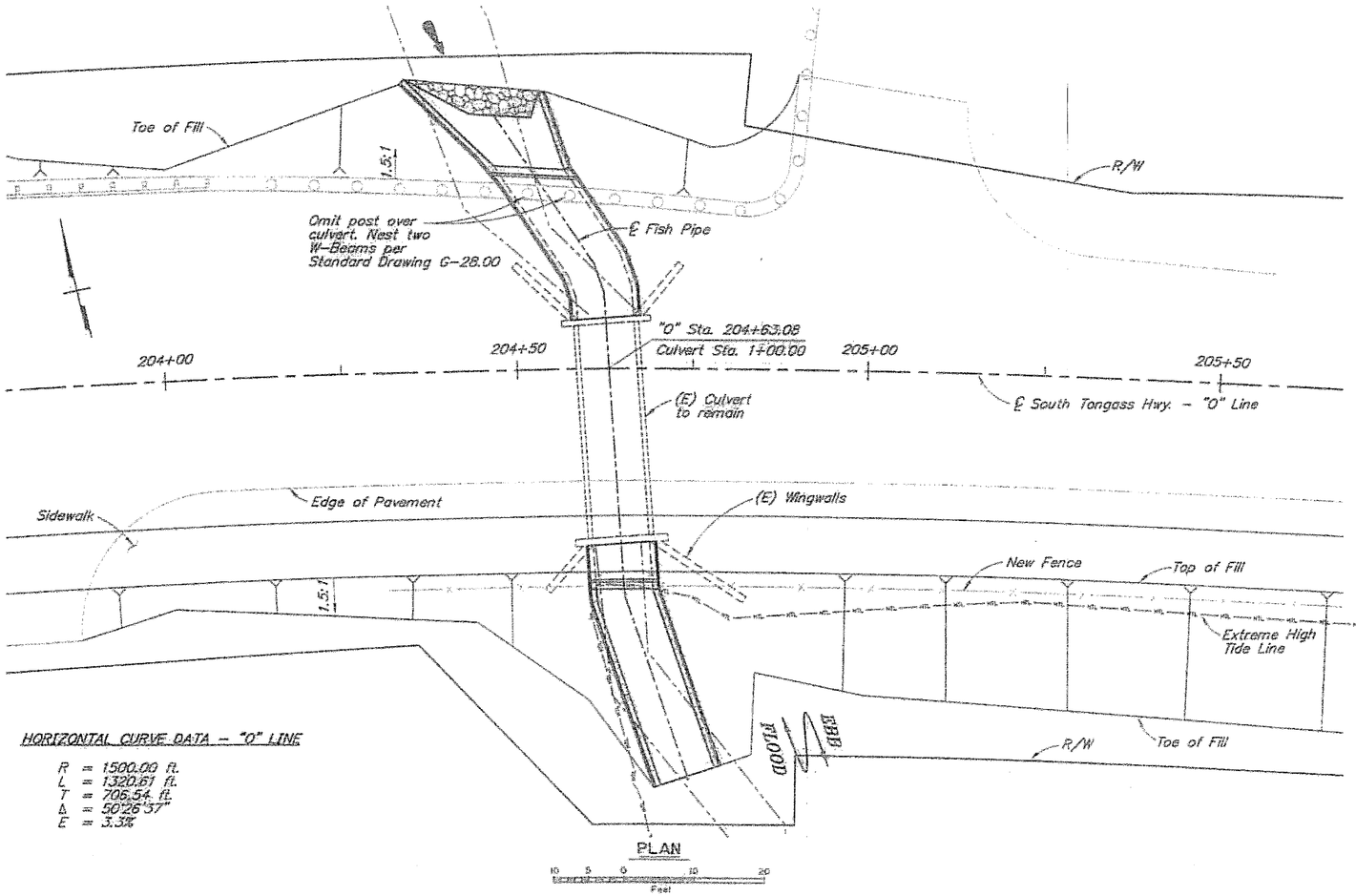
REVISIONS NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
MGS-STP-0902(20)	2006	H3	179

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H4	



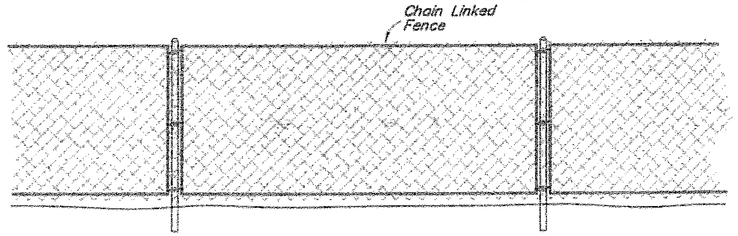
PROFILE GRADE DATA
No Scale

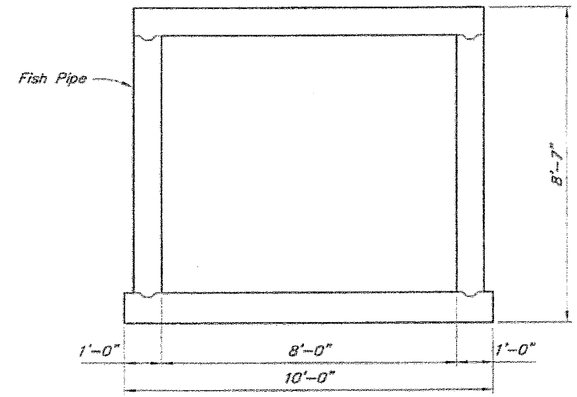


HORIZONTAL CURVE DATA - "0" LINE

R = 1500.00 ft.
L = 1320.61 ft.
T = 708.54 ft.
Δ = 50°26'37"
E = 3.3%

PLAN
10 5 0 10 20
Feet





TYPICAL SECTION
12 6 0 1 2 3 4
In. Feet

CONCRETE BOX CULVERT EXTENSION DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
PLAN AND PROFILE	3
INLET	4
INLET - BOTTOM SLAB REINFORCEMENT	5
INLET - WALL REINFORCEMENT	6
INLET - TOP SLAB REINFORCEMENT	7
OUTLET	8
OUTLET - SLAB REINFORCEMENT	9
OUTLET - WALL REINFORCEMENT	10
MISCELLANEOUS DETAILS	11

NOTES:
(E) = Existing
- - - - - - = Existing
——— = Proposed

Verify all controlling field dimensions before ordering or fabricating any material.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
Proj. Eng _____ Date _____

DESIGNED BY: Peter Glessel	CHECKED: Todd Berls	LAYOUT BY: Peter Glessel	CHECKED BY: Todd Berls
DRAWN BY: Sam Sollis	CHECKED: Peter Glessel	SPECIFICATIONS BY: Peter Glessel	P S & E COMPARED: Todd Berls
QUANTITIES BY: Peter Glessel	CHECKED: Todd Berls	APPROVAL RECOMMENDED BY: Rich Pratt	

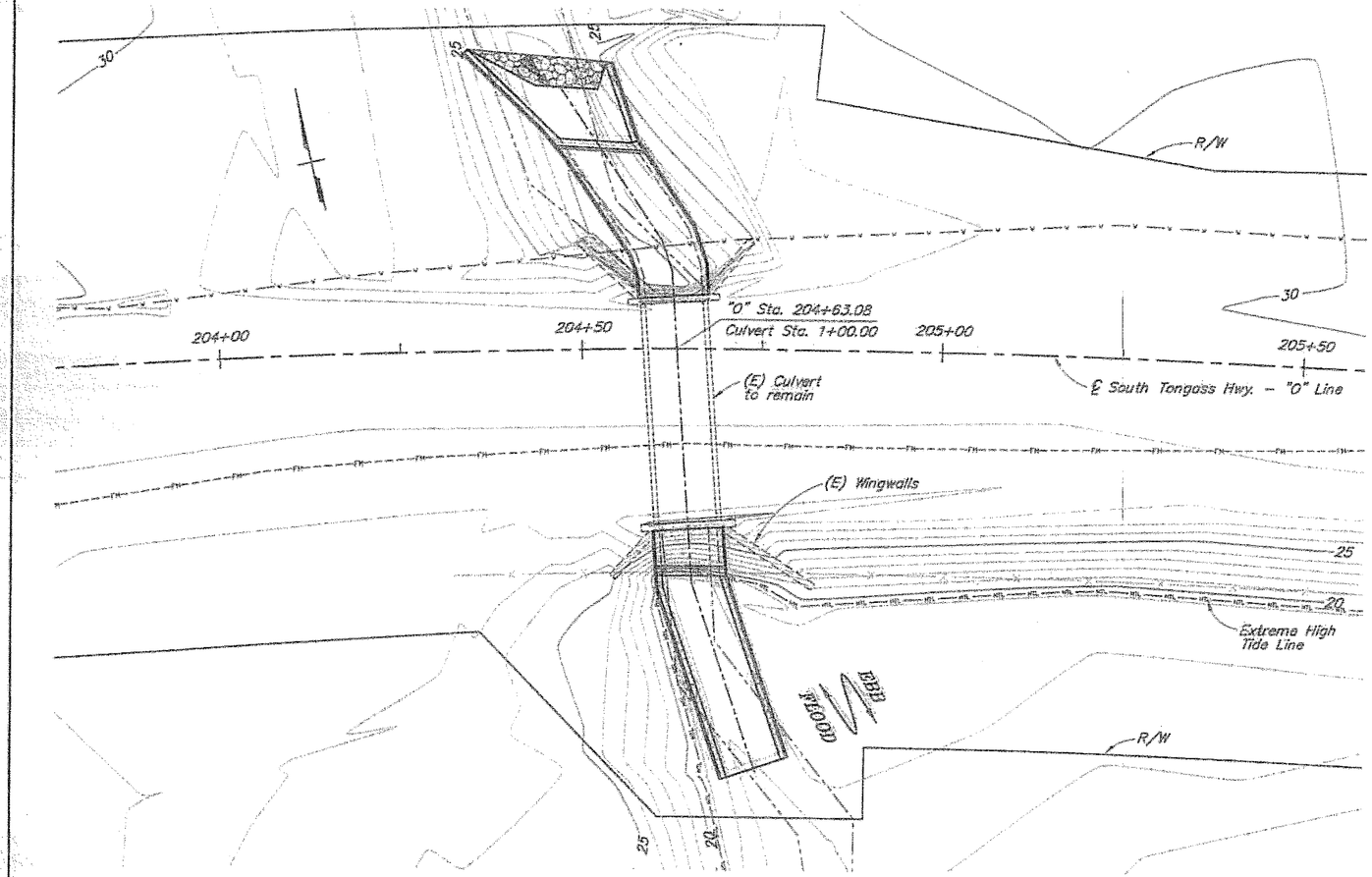
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Berls
No. CE 10609
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2
SOUTH TONGASS HIGHWAY
GENERAL LAYOUT

BRIDGE NO.
DWG. NO. 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H5	



SITE PLAN

10 5 0 10 20
Feet

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2004 Edition, with the latest Interim Specifications.

LIVE LOAD:..... HL-93

CONCRETE:..... Use Class A Concrete for all concrete unless otherwise noted. f'c= 4000 psi

REINFORCING STEEL:..... Use ASTM A615 reinforcing steel. Fy=60 ksi Space bars evenly unless otherwise noted.

STRUCTURAL STEEL:..... Use ASTM A709, Grade 36, Fy = 36 ksi. Galvanize all structural steel unless otherwise noted.

ABBREVIATIONS

℄	= Centerline	D/S	= downstream
ℙ	= Plate	Dwg.	= Drawing
&	= and	Elev.	= elevation
@	= at	e.f.	= each face
ø	= diameter	(E)	= existing
—E—	= electrical line	f.f.	= far face
— — —	= existing	HW	= head water
———	= proposed	Hwy.	= Highway
—SS—	= sewer line	max.	= maximum
—W—	= water line	min.	= minimum
—HTL—	= extreme high water line	M.H.H.W	= Mean Higher High Water
Approx.	= approximate	MMC	= Microsillica Modified Concrete
Abut.	= Abutment	n.a.	= not applicable
bot.	= bottom	n.c.	= not calculated
Br.	= Bridge	n.f.	= near face
btwn.	= between	No.	= Number
Brg.	= Bearings	o.c.	= on center
C.I.P.	= Cast-in-Place	O.H.W.	= Ordinary High Water
CFS	= cubic feet per second	R/W	= right of way
Clr.	= Clear, Clearance	spc.	= space, spaces
col.	= column	Sta.	= Station
CSL	= Crosshole Sonic Logging	Symm.	= Symmetric
dia.	= diameter	Typ.	= Typical
D.H.W.	= Design High Water	U/S	= upstream

HYDRAULIC SUMMARY

DESCRIPTION	QUANTITIES
Box Culvert (Span & Rise)	8'-0"x7'-0" Nom. Inlet Invert Elev. 20.71'
Length	32.0' U/S, 38.0' D/S (Approx.) Outlet Invert Elev. 16.48
Material	Reinforced Concrete with Baffles
Slope (%)	2.4% / 9.1%
Drainage Area	0.65 Sq. Miles
Design Discharge Q50	335 CFS
Design Headwater Elevation	26.0 FT.
Discharge @ HW/dia.=1.0	400 CFS
Riprap Inlet Apron	Class I
Riprap Placed Inside Culvert	(n.a.)
Purpose: Stream crossing with fish passage provisions.	
Work Window:	

CONCRETE BOX CULVERT EXTENSION BASIS OF ESTIMATE

ITEM	UNIT	TOTAL
Epoxy Coated Reinforcing Steel	LBS	11,918
Class A Concrete	CY	60
Riprap, Class I	CY	5

Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris	HYDRAULICS BY: Michael W. Knapp
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel	
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Boris
No. CE 10920
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

SOUTH TONGASS HIGHWAY

SITE PLAN

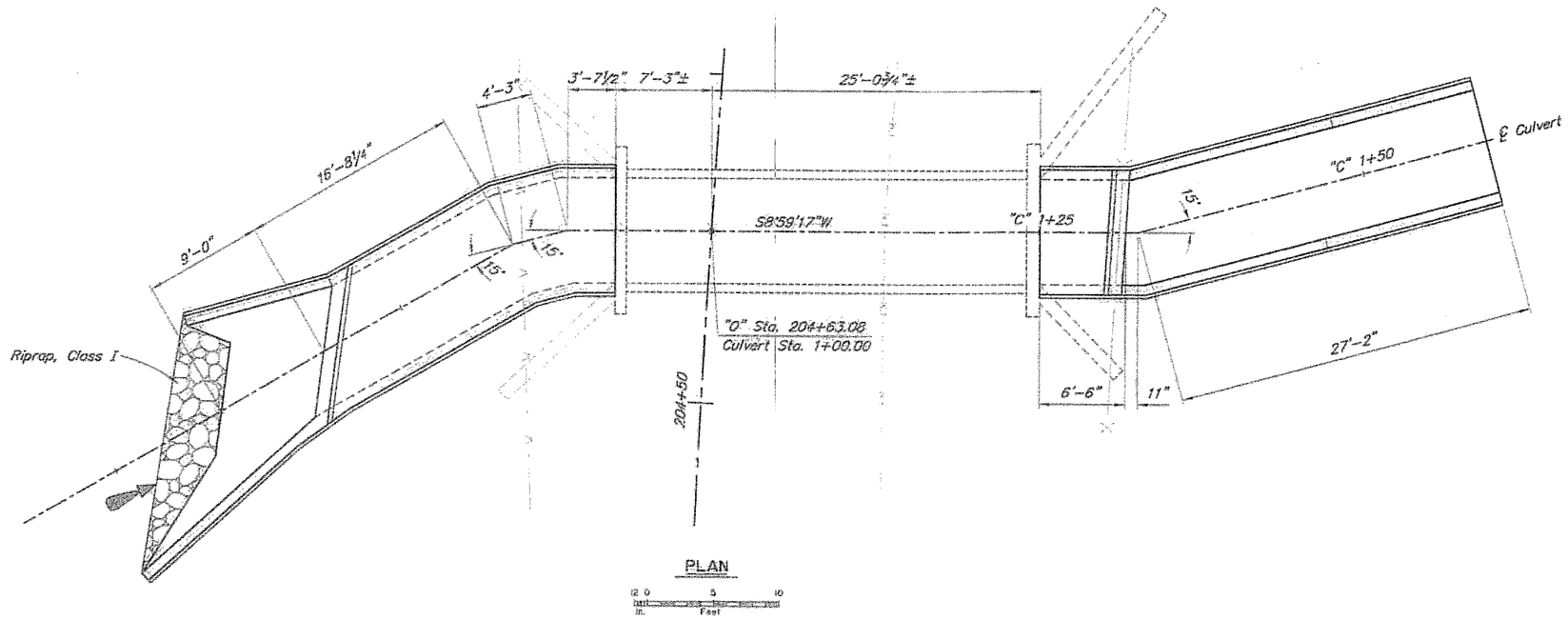
Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSHERED Date 4-09

BRIDGE NO.

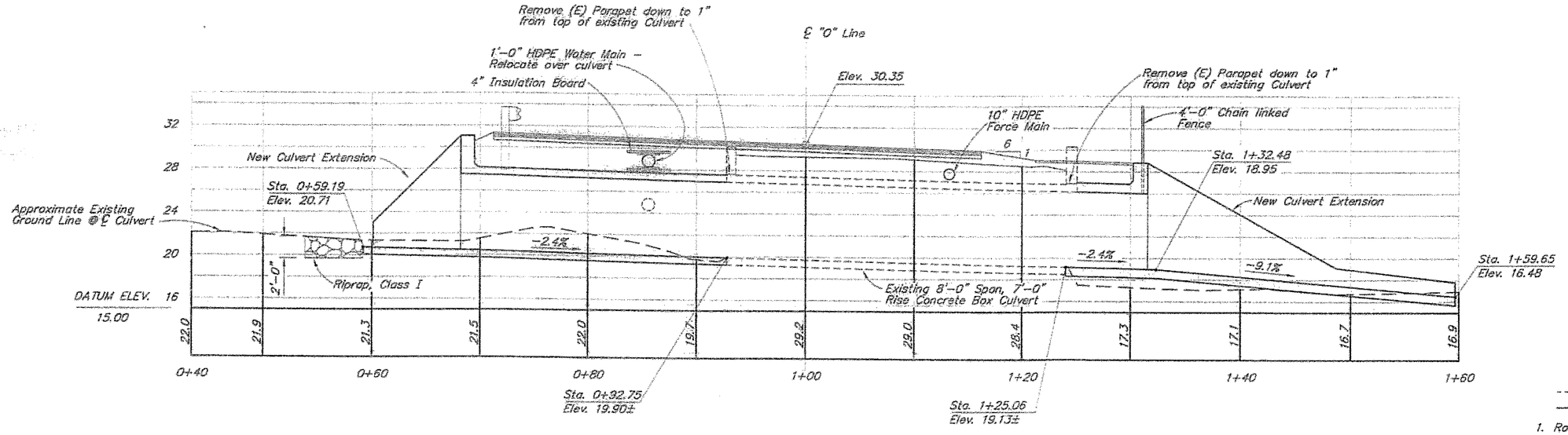
DWG. NO. 2

STATE	PROJECT DESIGNATION	YEAR	SHEET No.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H6	



PLAN

12 0 5 10
Inch
ft. Feet



PROFILE ALONG CENTERLINE CULVERT

12. 0 5 10
Inch
m. Feet

NOTES:

(E) = Existing
----- = Existing
——— = Proposed

1. Rock excavation may be required at culvert ends.
2. See Dwg. No. 11 for baffle details.
3. Verify all controlling field dimensions before ordering or fabricating any material.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSteves Date 4-09

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris	
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel	
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Boris
No. CE 10809
1-28-09
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

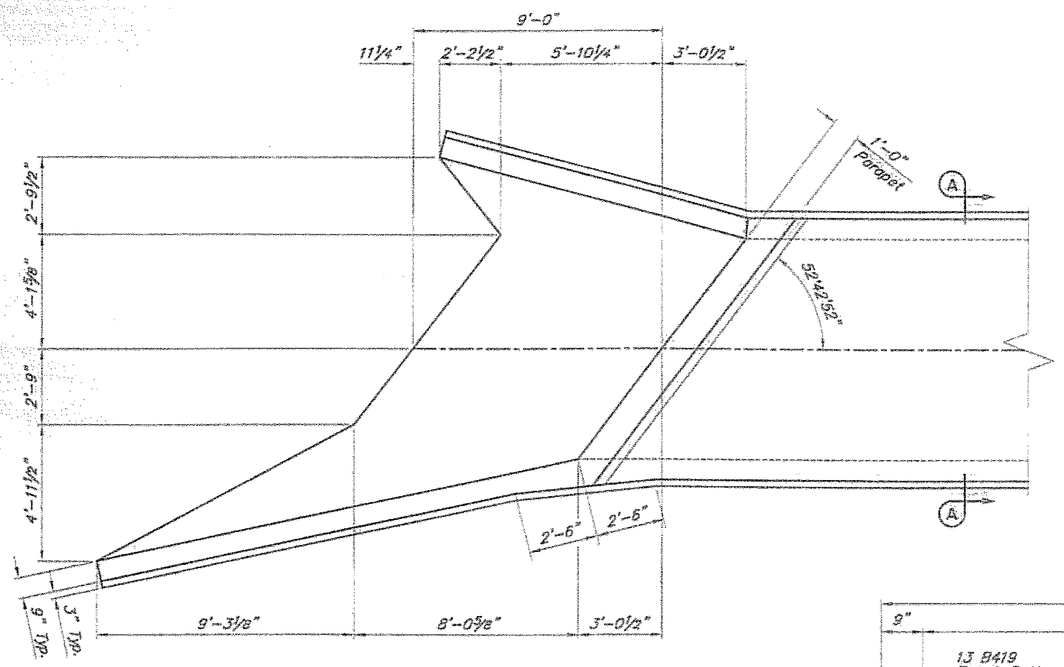
SOUTH TONGASS HIGHWAY

PLAN AND PROFILE

BRIDGE NO.

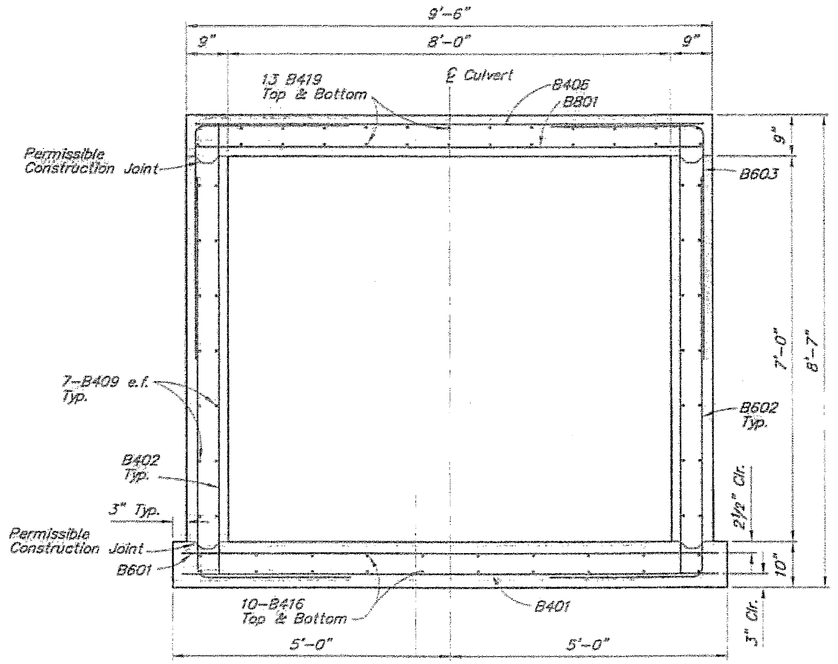
DWG. NO. 3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H7	



INLET - PLAN VIEW

12 0 1 2 3 4
In. Feet



SECTION A-A

12 6 0 1 2 3
In. Feet

REINFORCING STEEL

a

MARK	SIZE	NO.	LENGTH	TYPE
B401	4	23	9'-8"	——
B402	4	58	8'-2"	——
B403	4	25	2'-0"	——
B404	4	32	Varies	——
B405	4	34	Varies	——
B406	4	22	9'-2"	——
B407	4	114	3'-0"	——
B408	4	196	5'-0"	Bent
B409	4	28	14'-0"	——
B410	4	4	12'-7"	Bent
B411	4	10	Varies	Bent
B412	4	2	23'-9¼"	Bent
B413	4	5	Varies	Bent
B414	4	2	23'-7"	Bent
B415	4	5	Varies	Bent
B416	4	20	23'-2"	——
B417	4	48	6'-8"	——
B418	4	28	26'-6"	——
B419	4	26	Varies	——
B420	4	26	Varies	——
B421	4	20	Varies	——
B601	6	91	9'-8"	——
B602	6	102	10'-0"	Bent
B603	6	79	7'-0"	Bent
B604	6	38	4'-9"	Bent
B605	6	57	Varies	Bent
B606	6	44	9'-6"	——
B607	6	22	Varies	——
B608	6	2	23'-0"	Bent
B609	6	2	23'-11½"	Bent
B610	6	11	Varies	Bent
B611	6	5	Varies	——
B612	6	2	17'-0"	——
B613	6	2	6'-0"	——
B614	6	4	12'-0"	——
B615	6	4	9'-0"	——
B616	6	4	4'-0"	——
B617	6	6	16'-6"	——
B618	6	2	11'-3"	——
B801	8	30	9'-2"	——
B802	8	3	Varies	——

BENDING DIAGRAM

2'-0" to 10'-0" — B405

2'-9" to 10'-9" — B404

12'-7⅝" to 17'-6¾" — B419

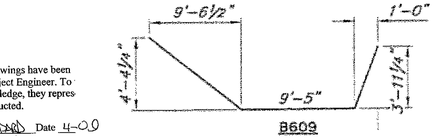
6'-1½" to 6'-8" — B420

5'-6" to 14'-4" — B421

12'-4" to 16'-4" — B607

2'-9" to 3'-7¾" — B611

5'-9½" to 8'-5" — B802



Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.

Proj. Eng AKSVEDAS Date 4-09

a - Epoxy coated.

See sheet 11 for "D" & "P" bars

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glaszel	CHECKED: Todd Boris		
DRAWN BY: Sam Soltis	CHECKED: Peter Glaszel		
QUANTITIES BY: Peter Glaszel	CHECKED: Todd Boris		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49 TH. Todd A. Boris No. CE 10609 1-30-06 REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

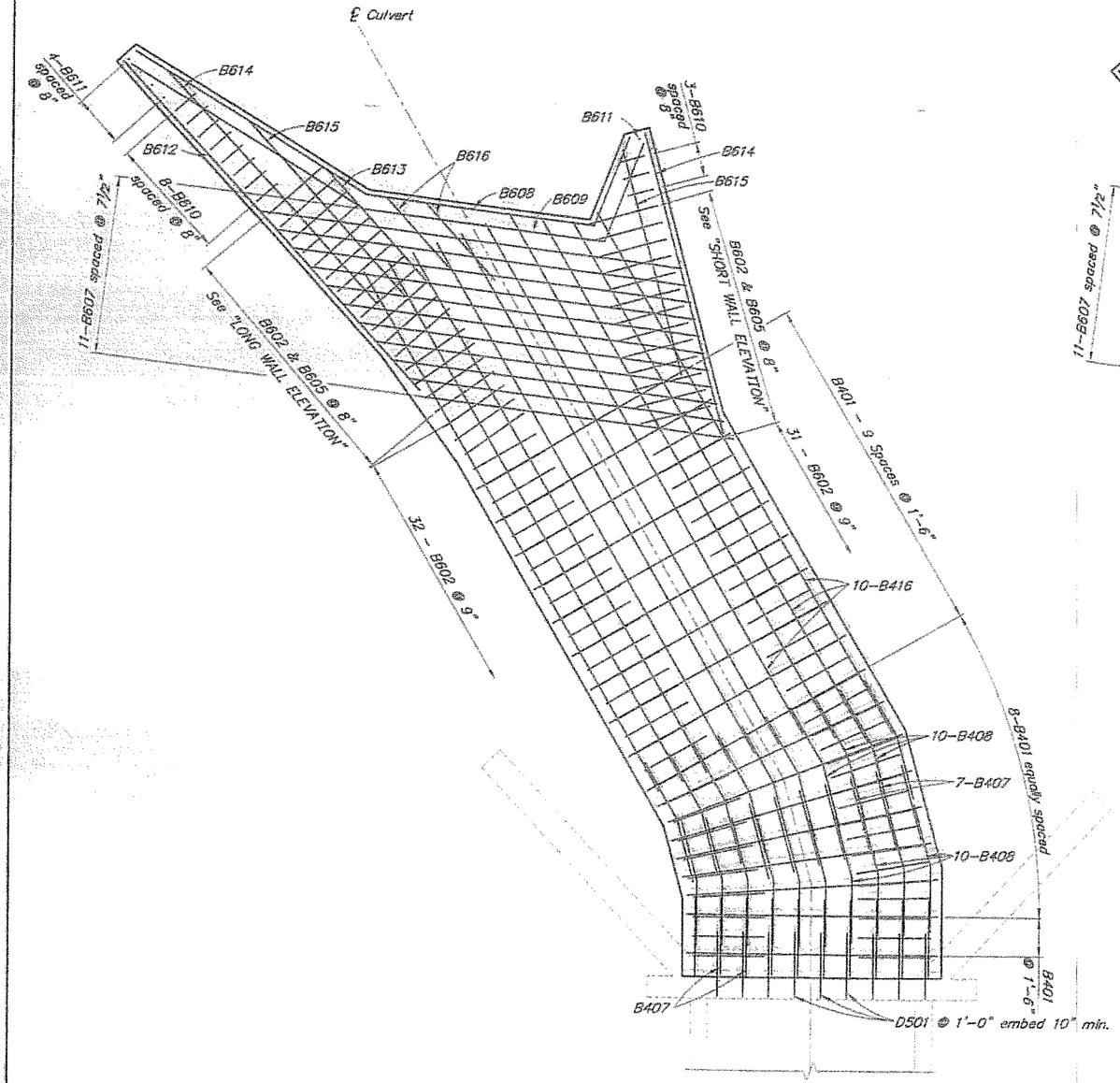
SOUTH TONGASS HIGHWAY

INLET

BRIDGE NO.

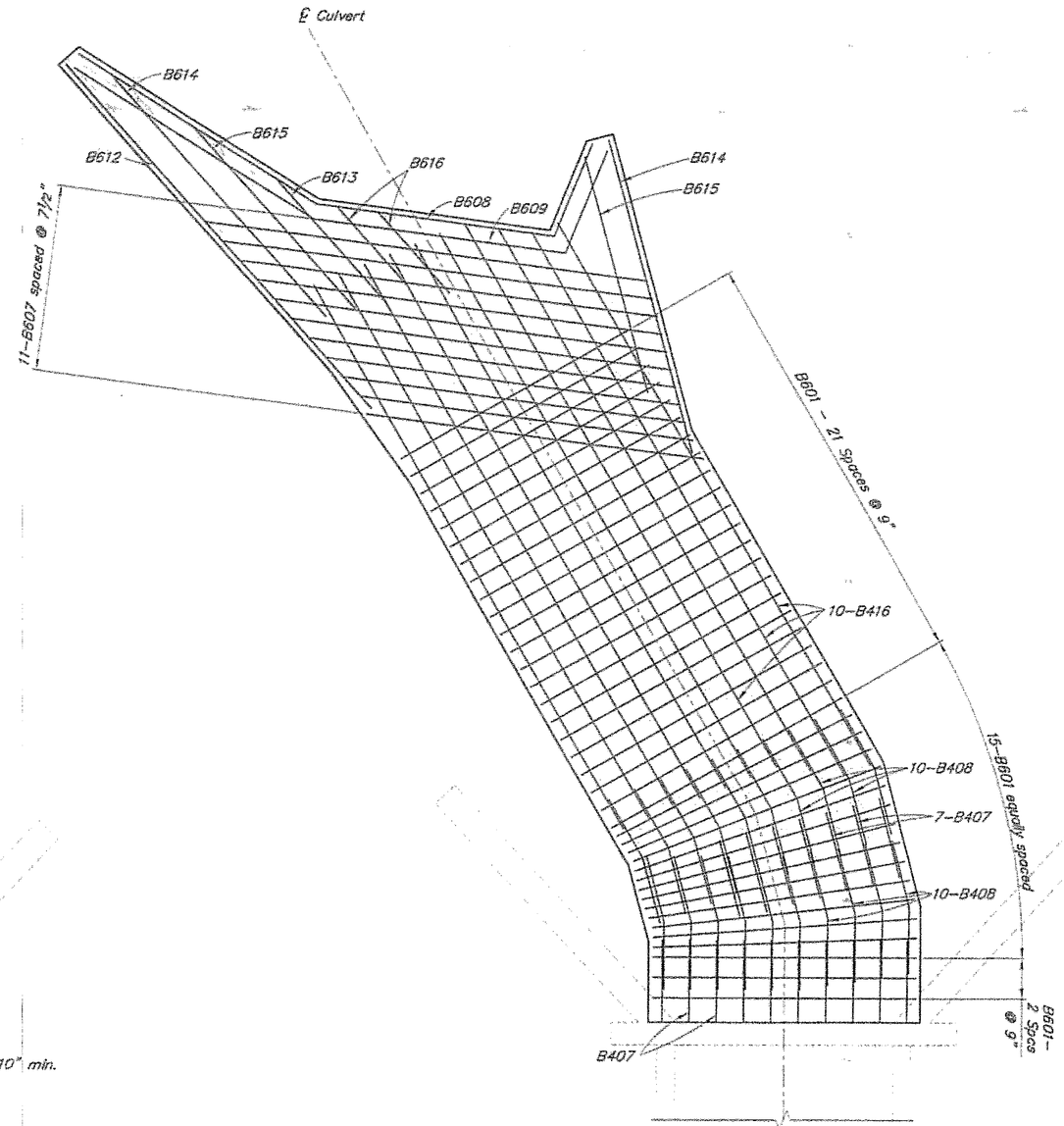
DWG. NO. 4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H8	



BOTTOM OF CULVERT - BOTTOM MAT REINFORCING DETAILS

12 0 1 2 3 4
Inches Feet



BOTTOM OF CULVERT - TOP MAT REINFORCING DETAILS

12 0 1 2 3 4
Inches Feet

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris	
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel	
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Todd A. Boris No. CE 10839 1-10-00 REGISTERED PROFESSIONAL ENGINEER

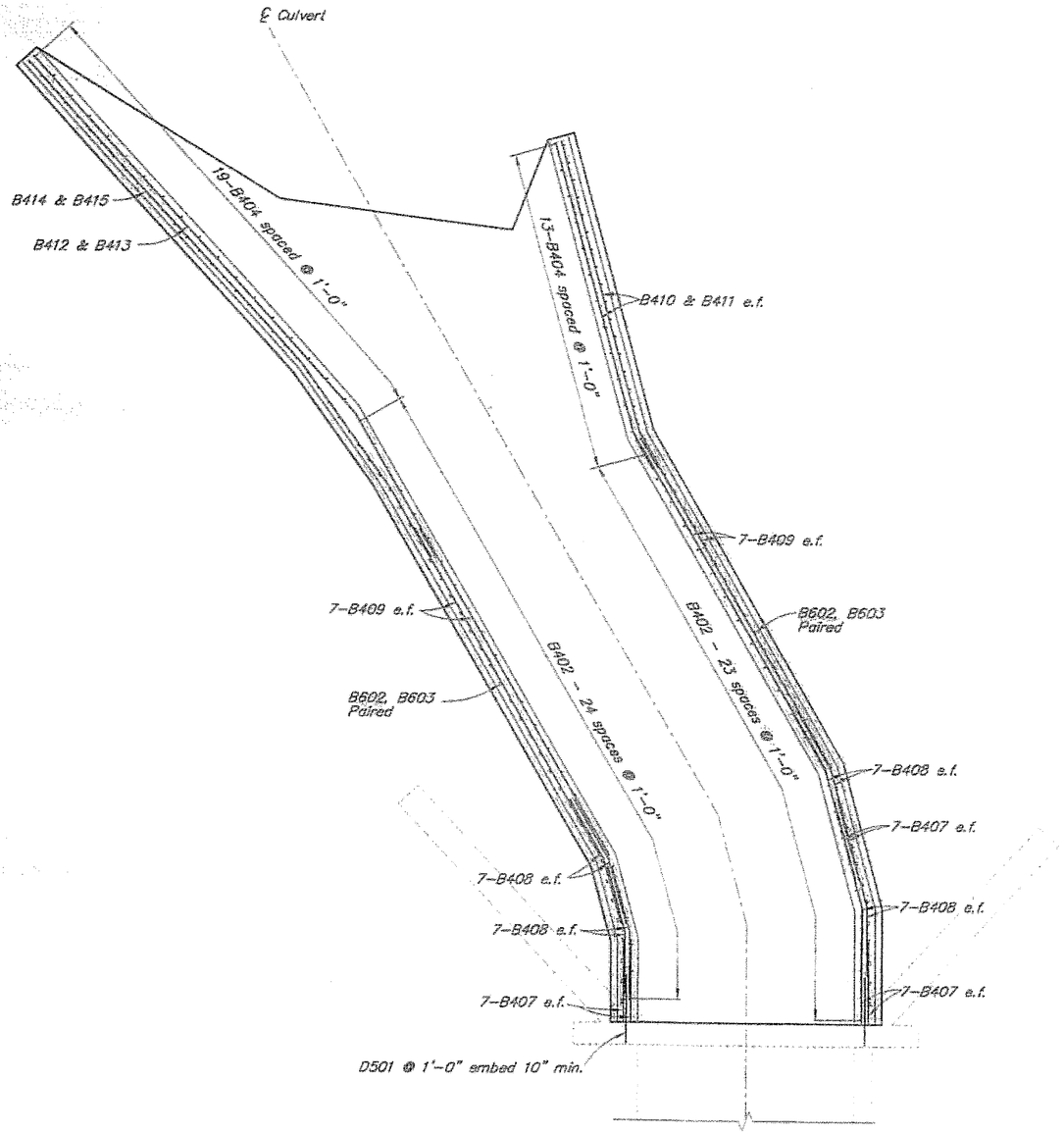
Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they repres the project as constructed.
Proj. Eng AKSUDARI Date 4-09

FISH PIPE 2
SOUTH TONGASS HIGHWAY

INLET – BOTTOM SLAB REINFORCEMENT

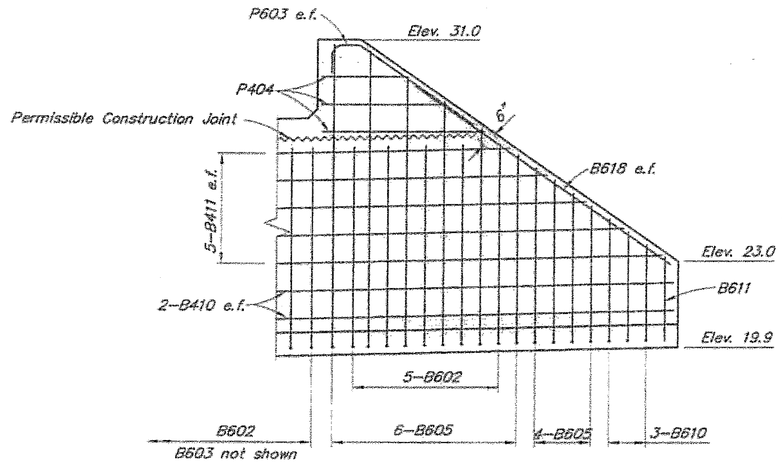
BRIDGE NO.
DWG. NO. 5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H9	



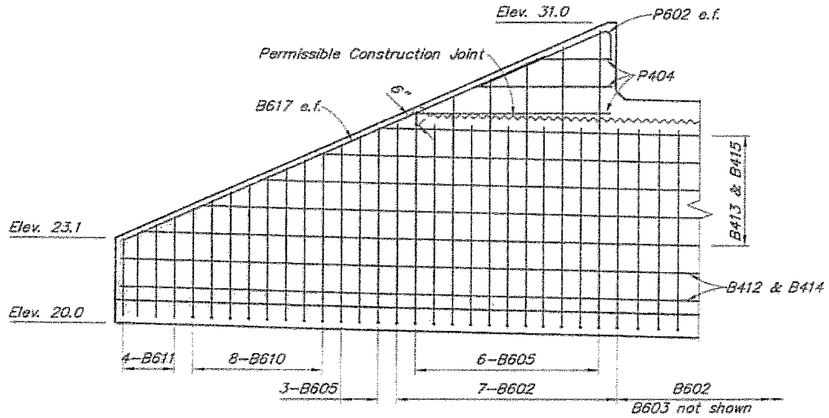
WALL PLAN VIEW REINFORCING

12 0 1 2 3 4
in. Feet



SHORT WALL ELEVATION

12 0 1 2 3 4
in. Feet



LONG WALL ELEVATION

12 0 1 2 3 4
in. Feet

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glassel	CHECKED: Todd Barta	
DRAWN BY: Sam Sallie	CHECKED: Peter Glassel	
QUANTITIES BY: Peter Glassel	CHECKED: Todd Barta	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Barta
No. CE 10809
1-30-06
REGISTERED PROFESSIONAL ENGINEER

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng [illegible] Date 4-09

FISH PIPE 2

SOUTH TONGASS HIGHWAY

INLET – WALL REINFORCEMENT

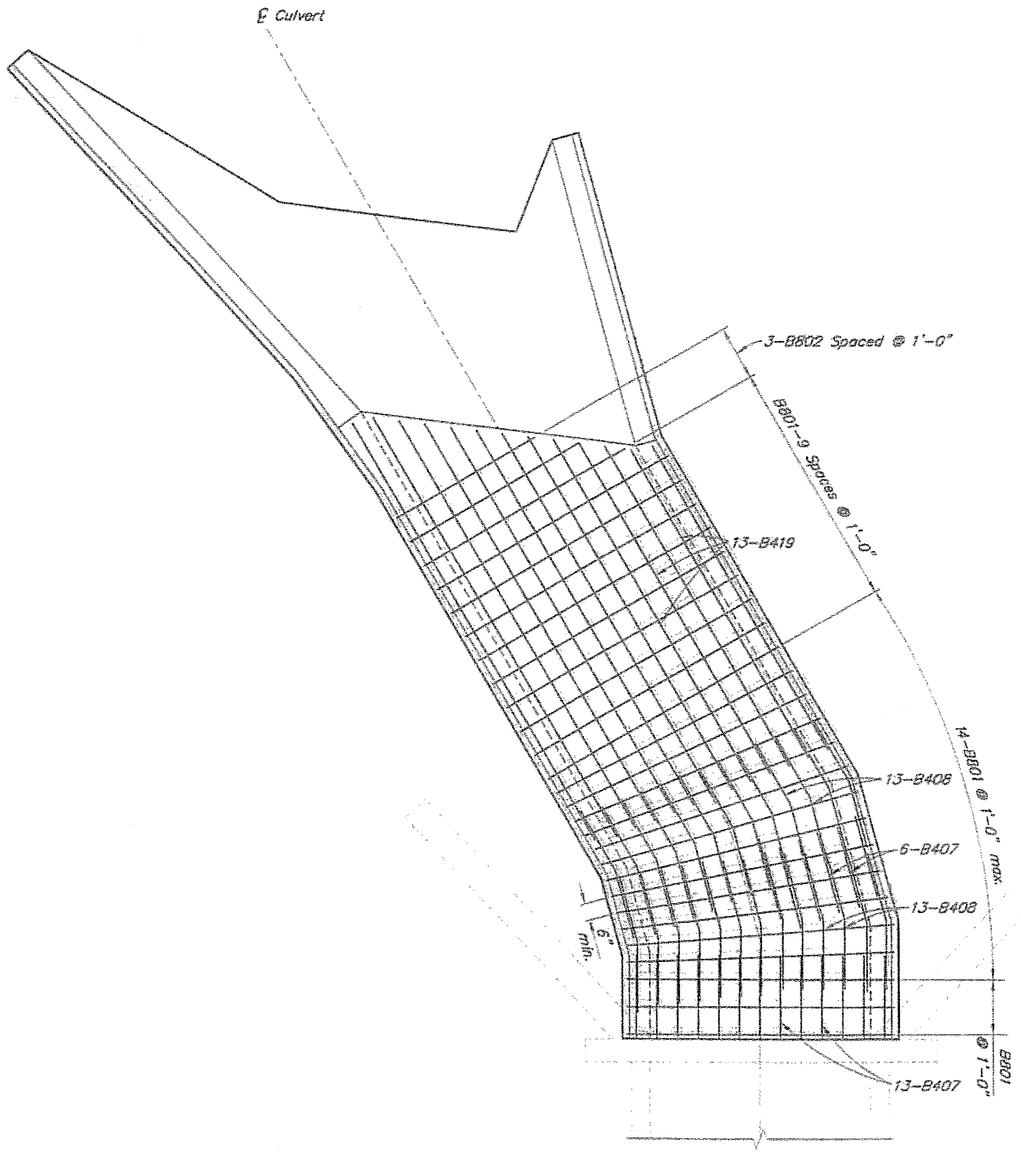
BRIDGE NO.

DWG. NO. 6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MOS-STP-0921201/71670	2006	H10	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

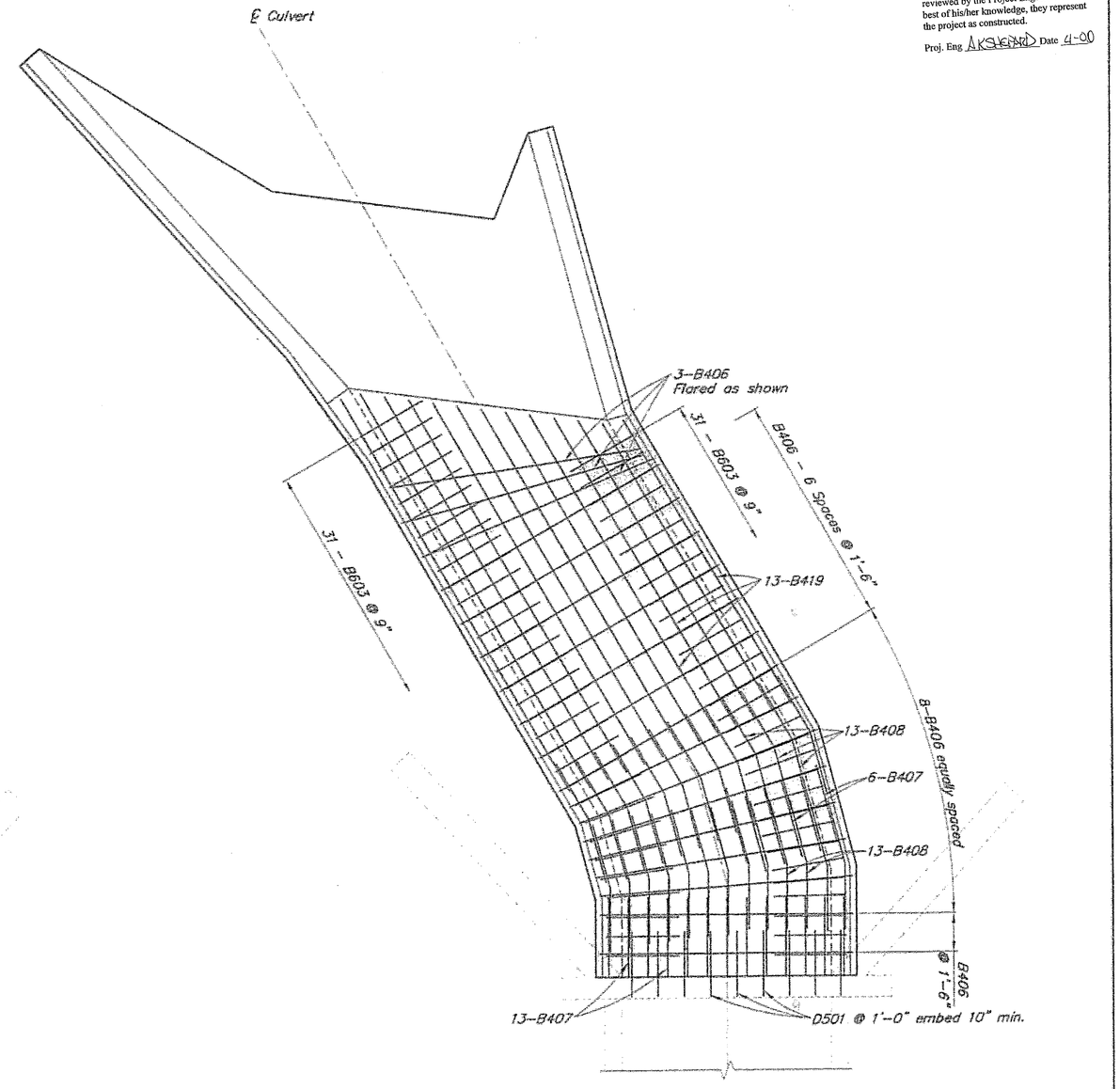
Proj. Eng AKSKEPARD Date 4-00



TOP OF CULVERT - BOTTOM MAT REINFORCING DETAILS

(Parapet steel not shown)

12 0 1 2 3 4
In. Feet



TOP OF CULVERT - TOP MAT REINFORCING DETAILS

(Parapet steel not shown)

12 0 1 2 3 4
In. Feet

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49 TH
Todd A. Boris
No. CE 11909
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

SOUTH TONGASS HIGHWAY

INLET – TOP SLAB REINFORCEMENT

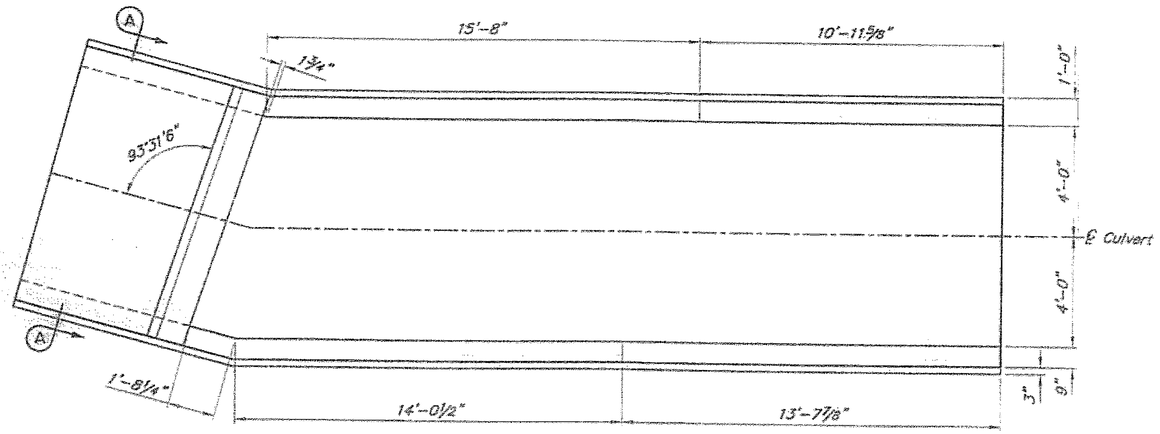
BRIDGE NO.

DWG. NO. 7

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H11	

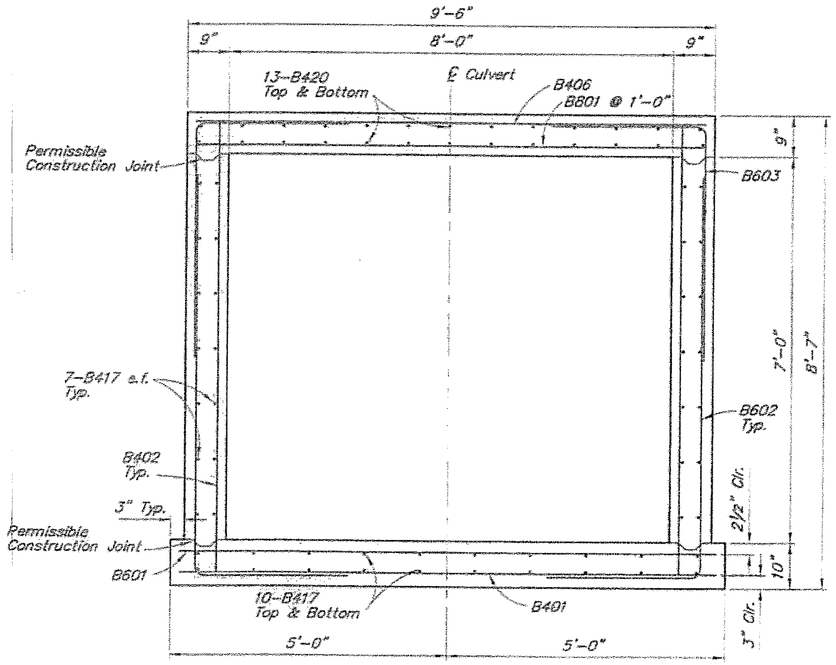
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. AKSTEAD Date 4-09



OUTLET - PLAN VIEW

12 0 1 2 3 4
In. Feet



SECTION A-A

12 6 0 1 2 3
In. Feet

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glassel	CHECKED: Todd Borla	
DRAWN BY: Sam Sollis	CHECKED: Peter Glassel	
QUANTITIES BY: Peter Glassel	CHECKED: Todd Borla	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Borla
No. CE 10603
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

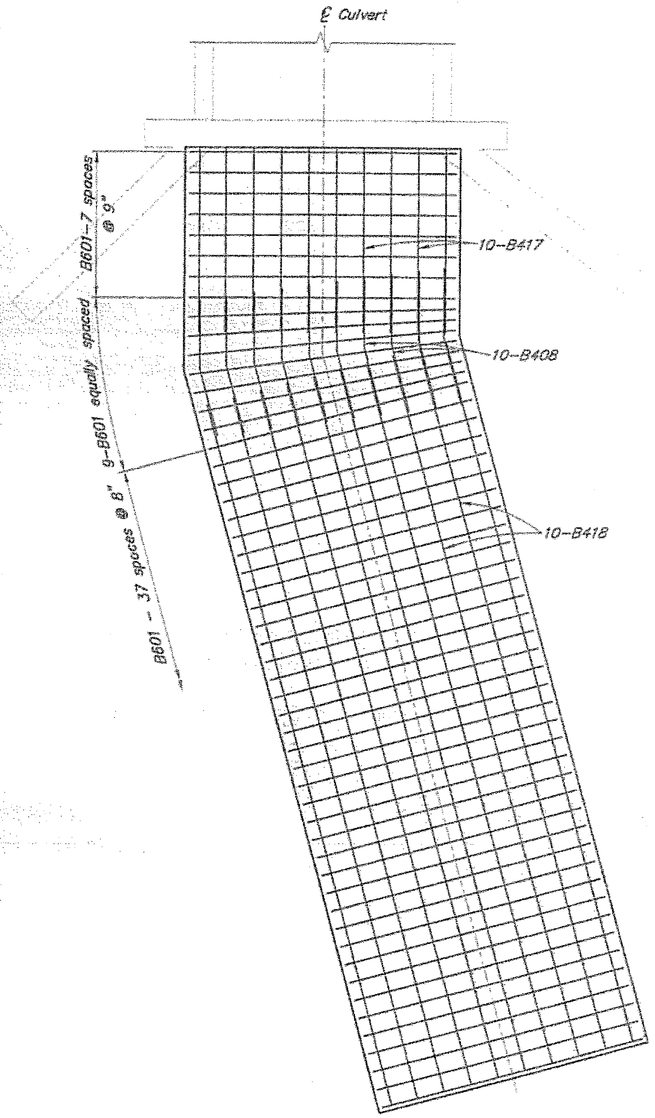
SOUTH TONGASS HIGHWAY

OUTLET

BRIDGE NO.

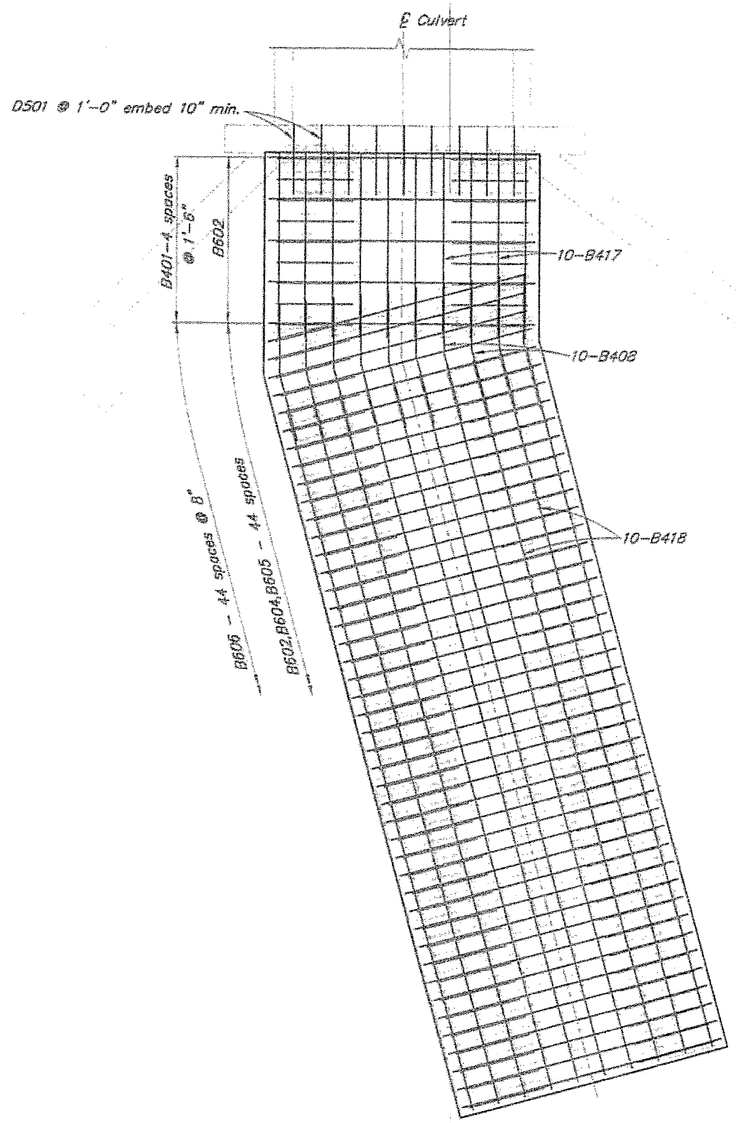
DWG. NO. 8

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H12	



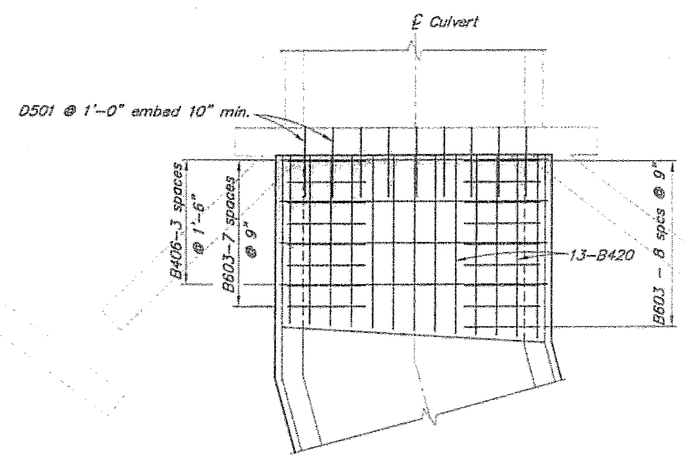
BOTTOM OF CULVERT - TOP MAT REINFORCING DETAILS

12 0 1 2 3 4
In. Feet



BOTTOM OF CULVERT - BOTTOM MAT REINFORCING DETAILS

12 0 1 2 3 4
In. Feet



TOP OF CULVERT - TOP MAT OF REINFORCING
(Parapet steel not shown)

12 0 1 2 3 4
In. Feet

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng AKSigned Date 4-09

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Borts
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel
QUANTITIES BY: Peter Glessel	CHECKED: Todd Borts

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Borts
No. CE 10909
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

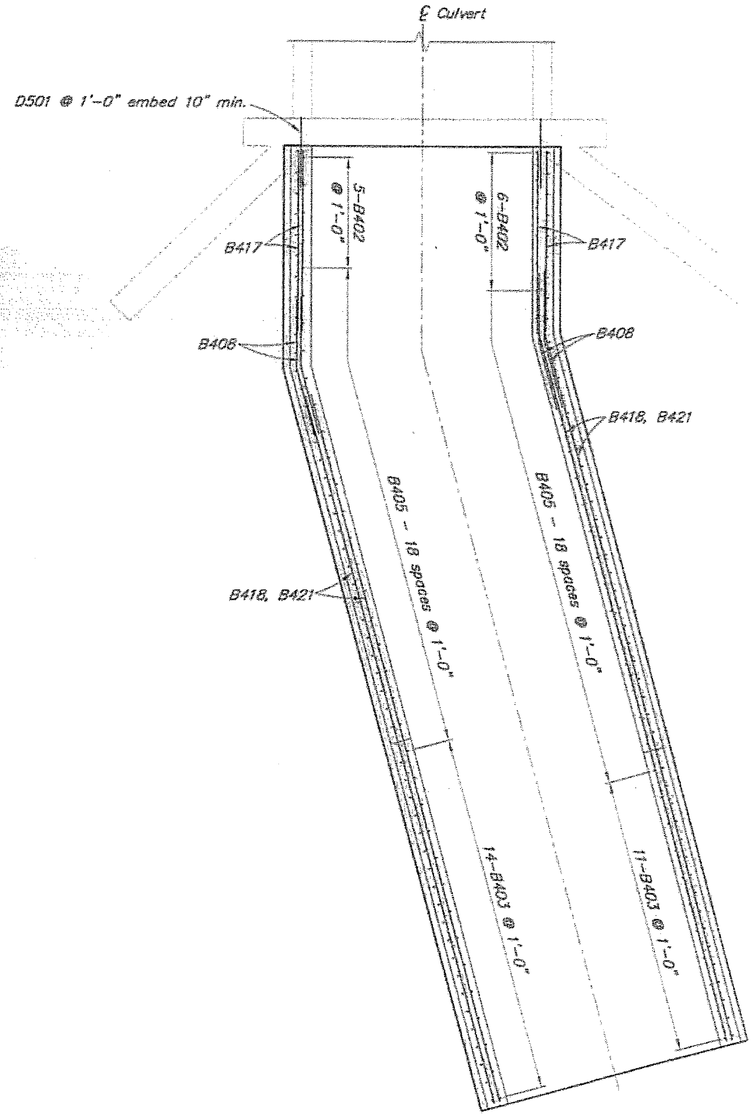
SOUTH TONGASS HIGHWAY

OUTLET – SLAB REINFORCEMENT

BRIDGE NO.

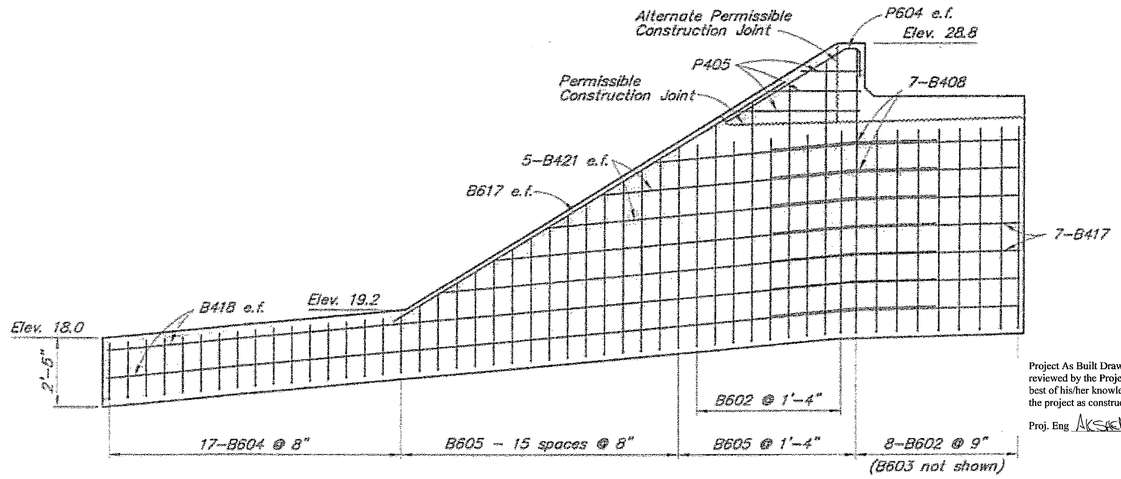
DWG. NO. 9

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-092(20)/71670	2006	H13	



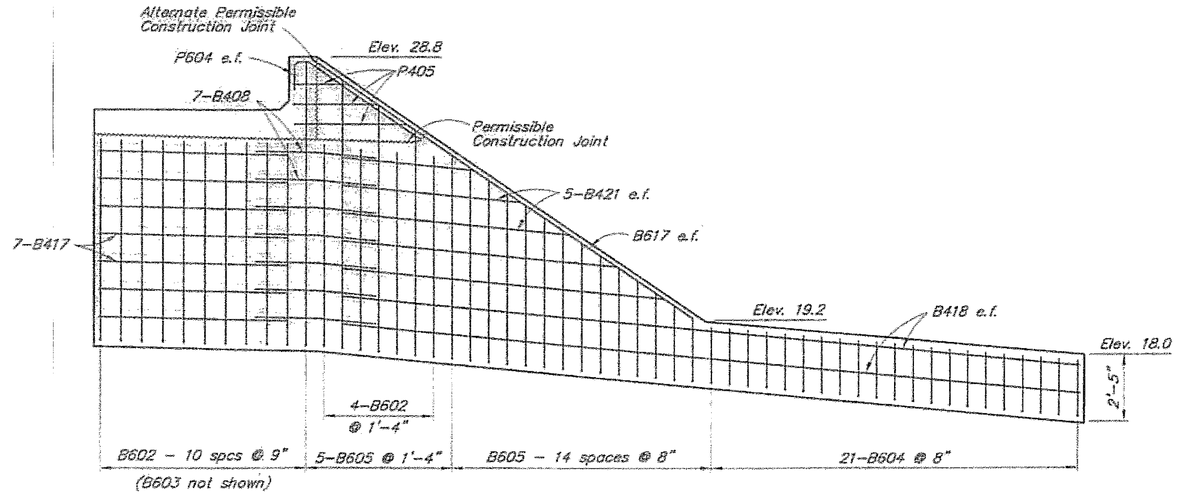
WALL PLAN VIEW REINFORCING

12 0 1 2 3 4
In. Feet



EAST WALL ELEVATION

12 0 1 2 3 4
In. Feet



WEST WALL ELEVATION

12 0 1 2 3 4
In. Feet

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng _____ Date 4-09

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris	
DRAWN BY: Sam Sallie	CHECKED: Peter Glessel	
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Todd A. Boris
No. CE 10609
REGISTERED PROFESSIONAL ENGINEER

FISH PIPE 2

SOUTH TONGASS HIGHWAY

OUTLET - WALL REINFORCEMENT

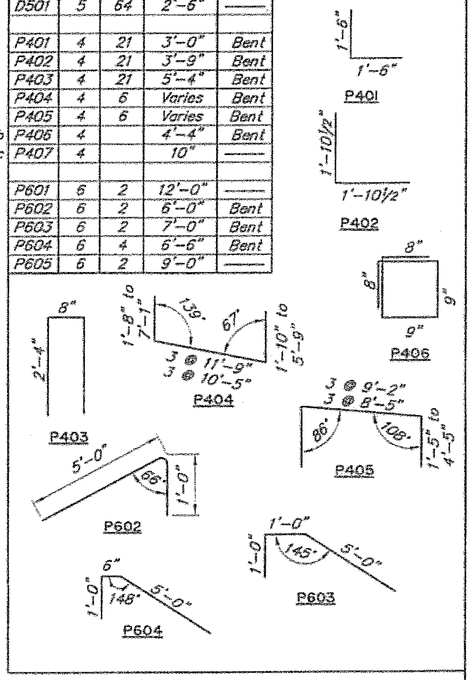
BRIDGE NO. _____

DWG. NO. 10

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGS-STP-0921(20)/71670	2006	H14	

REINFORCING STEEL

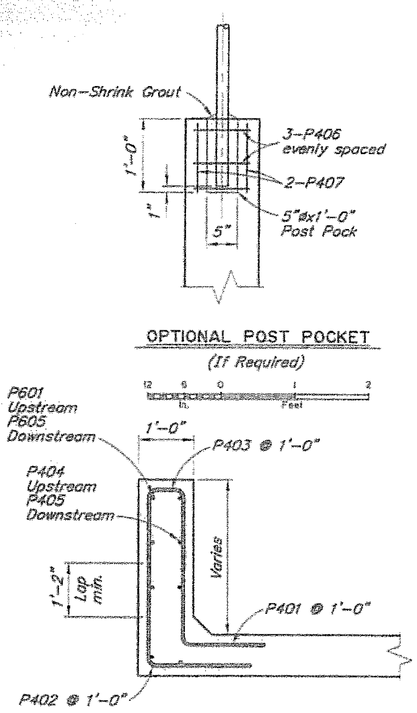
MARK	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
D501	5	64	2'-6"	——	
P401	4	21	3'-0"	Bent	
P402	4	21	3'-9"	Bent	
P403	4	21	5'-4"	Bent	
P404	4	6	Varies	Bent	
P405	4	6	Varies	Bent	
b P406	4		4'-4"	Bent	
c P407	4		10"	——	
P601	6	2	12'-0"	——	
P602	6	2	6'-0"	Bent	
P603	6	2	7'-0"	Bent	
P604	6	4	6'-6"	Bent	
P605	6	2	9'-0"	——	



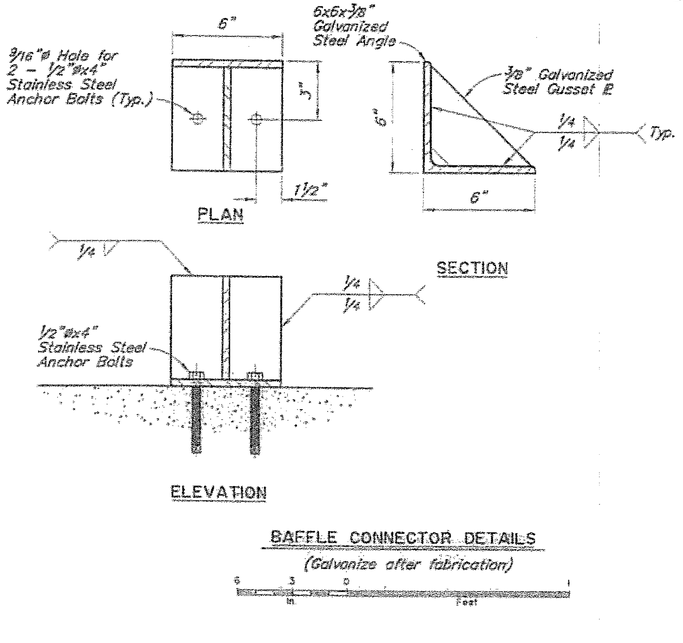
a – Epoxy coated.
b – 3 times the number of post pockets required.
c – 4 times the number of post pockets required.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

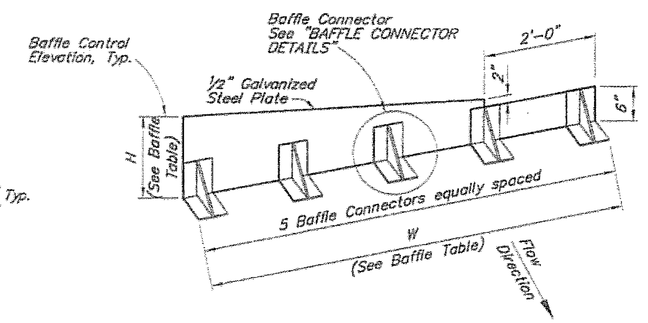
Proj. Eng _____ Date 4-09



OPTIONAL POST POCKET
(If Required)

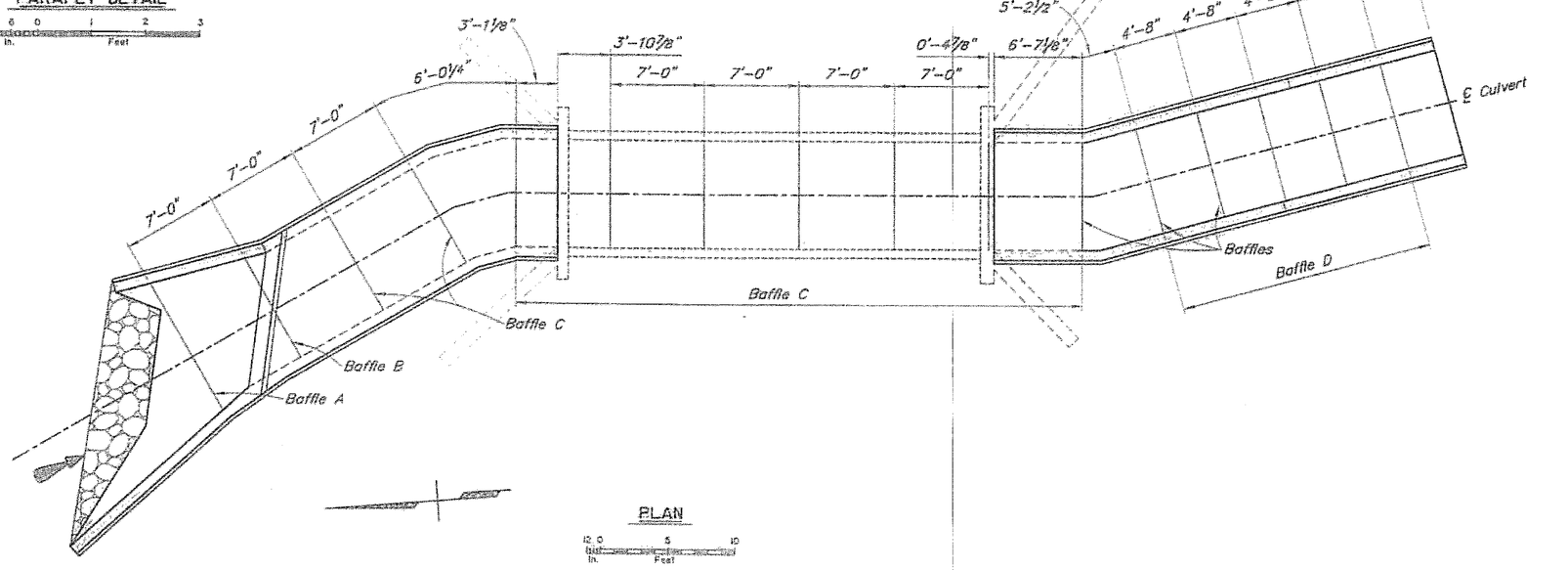


BAFFLE CONNECTOR DETAILS
(Galvanize after fabrication)



BAFFLE DETAIL
(Galvanize after fabrication)

PARAPET DETAIL



PLAN

BAFFLE IDENTIFCATION			
MARK	NUMBER	H	W
Baffle A	1	1'-4"	10'-9⅞"
Baffle B	1	1'-4"	8'-5"
Baffle C	9	1'-4"	8'-0"
Baffle D	5	1'-7"	8'-0"

NOTE:

1. Provide water-tight sealant at baffle-concrete interface.
2. Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Peter Glessel	CHECKED: Todd Boris
DRAWN BY: Sam Sollie	CHECKED: Peter Glessel
QUANTITIES BY: Peter Glessel	CHECKED: Todd Boris

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49 TH Todd A. Boris No. CE 10869 REGISTERED PROFESSIONAL ENGINEER 1-30-09

FISH PIPE 2

SOUTH TONGASS HIGHWAY

MISCELLANEOUS DETAILS

BRIDGE NO. _____

DWG. NO. 11