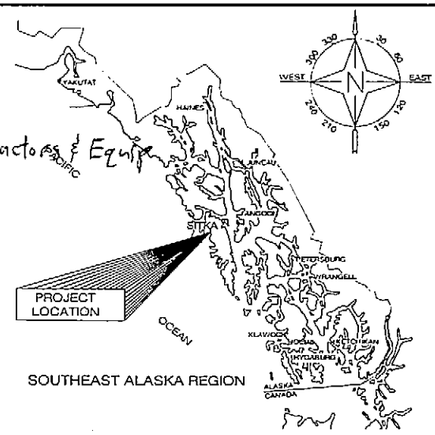
State of Alaska

Department of Transportation and Public Facilities
Southeast Region

As Built Plans
Contractor: S & S Gen. Contractors & Equip
P.E. John Hollatz
Bgn Constr: March 30, 2006
End Constr: October 15, 2007



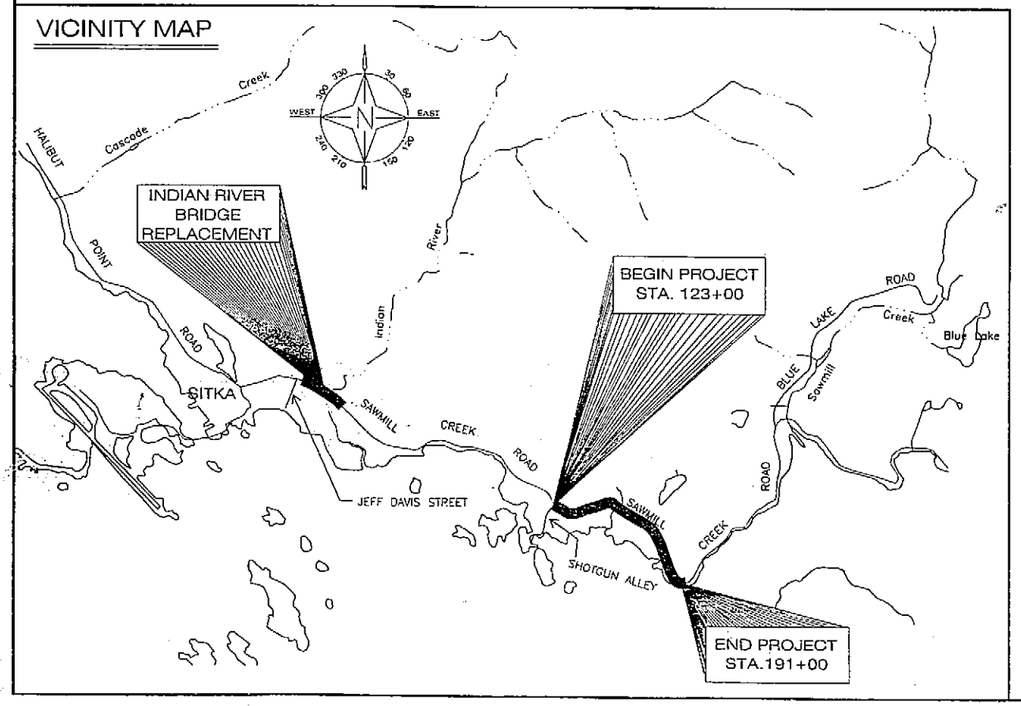
SITKA, ALASKA

SAWMILL CREEK ROAD PHASE II (SHOTGUN ALLEY TO WHALE PARK)

& INDIAN RIVER BRIDGE REPLACEMENT

68023/68926 STP-0933(31)/BR-0933(30)
CBS UTILITY UPGRADE RSA NO 68783

VICINITY MAP



PROJECT SUMMARY-SCR SAWMILL CREEK ROAD

CDS ROUTE NO	=	295500
CDS MILEPOINT	=	2.66 TO 3.95
LENGTH OF GRADING	=	1.29 MILES
LENGTH OF PAVING	=	1.29 MILES
WIDTH OF PAVING	=	30 FT
LENGTH OF PROJECT	=	1.29 MILES

PROJECT SUMMARY-INDIAN RV BRIDGE REPLACEMENT

CDS ROUTE NO	=	295500
CDS MILEPOINT	=	0.57 TO 0.73
LENGTH OF GRADING	=	0.15 MILES
LENGTH OF PAVING	=	0.15 MILES
WIDTH OF PAVING	=	32 FT
LENGTH OF PROJECT	=	0.15 MILES

DESIGN CRITERIA
CONSTRUCTION (3R)

DESIGN DESIGNATION SAWMILL CREEK ROAD

V	=	35 MPH
A.D.T. 2000	=	2000
A.D.T. 2013	=	2280
A.D.T. 2023	=	2510
D.H.V. % (2023)	=	10
TRUCKS %	=	5.1
E.A.L.	=	250,000

DESIGN DESIGNATION INDIAN RV BRIDGE REPLACEMENT

V	=	45 MPH
A.D.T. 2000	=	8800
A.D.T. 2013	=	10,020
A.D.T. 2023	=	11,060
D.H.V. % (2023)	=	10
TRUCKS %	=	2.6
E.A.L.	=	600,000

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1	B-08.00	C-03.10	C-04.12	C-05.10	D-04.21
D-06.10	D-09.00	D-20.03	D-22.01	D-23.01	D-24.00
D-26.02	D-30.01	D-35.00	D-36.00	D-37.01	E-00.00
E-09.00	E-13.00	F-01.01	G-00.01	G-04.06S	G-09.04S
G-10.01	G-15.10	G-20.10	I-20.13	I-21.01	I-22.01
I-81.00	L-03.10	L-23.01	L-26.00	M-13.01	M-16.01
M-20.12	M-23.12	S-00.10	S-05.01	S-20.10	S-30.03
T-05.10	T-06.00	T-20.02	T-21.02	T-22.03	U-03.00

THE FOLLOWING CBS STANDARD DETAILS APPLY TO THIS PROJECT:

20-7	20-8	20-9	30-6	40-1	50-1
50-2	50-3	50-4	50-5	50-6	50-7
50-8	50-9	50-10	50-11	50-12	50-13
50-14	60-2	60-3	60-4	60-6	60-7
60-8	60-11	70-1	70-2	70-5	

INDEX

SHEET NO.	DESCRIPTION
SHOTGUN ALLEY TO WHALE PARK (68023)	
A1	TITLE SHEET
A2	SHEET LAYOUT & SURVEY CONTROL
B1-B3	TYPICAL SECTIONS
C1-C3	ESTIMATE OF QUANTITIES
D1-D3	SUMMARY TABLES
E1-~~E6~~ E7	DETAILS
F1-F15	ROADWAY PLAN & PROFILE
K1-K2	TRAFFIC CONTROL PLAN
P1-P4	EROSION & SEDIMENT CONTROL PLAN
S1-S9	SIGNING & STRIPING
CBS UTILITY UPGRADE (RSA NO. 68783)	
UG-1	SITKA MAP
UG-2	KEY MAP & INDEX OF DRAWINGS
UG-3	GENERAL NOTES, LEGEND & ABBREVIATIONS
UG-4	SUMMARY TABLES
UC-1-UC-14	WATER & SEWER PLAN & PROFILE
UD-1	PRESSURE SEWER DETAILS
UPS1-UPS-3	PUMP STATION DETAILS
UA-1-UA-2	GENERATOR BUILDING
UE-1-UE-15	ELECTRICAL DRAWINGS
INDIAN RIVER BRIDGE REPLACEMENT (68926)	
N1	SHEET LAYOUT & SURVEY CONTROL
N2	TYPICAL ROAD SECTIONS
N3-N5	PLAN & PROFILE
N6-N18	BRIDGE PLANS
N19	TEST HOLE LOCATION MAP
N20	TEMPORARY CONSTRUCTION EASEMENT
N21	TEMPORARY CROSSING
N22	BRIDGE CONSTRUCTION PHASING PLAN
N23	TRAFFIC CONTROL
N24	EROSION & SEDIMENT CONTROL PLAN
N25-N26	SIGNING & STRIPING
N27-N29	ILLUMINATION PLANS
N30	LOOP DETECTOR DETAILS
N31	CONDUIT DETAILS
NUB1-NUB3	CBS UTILITIES @ INDIAN RIVER BRIDGE

PATH: I:\696201\DWGS\Sheets\A01.dwg PLOT: PSPACE: 1:1
Thu, 29/Dec/05 11:43AM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PLANS DEVELOPED BY: USKH INC.
RECOMMENDED FOR APPROVAL:

PATRICK J. KEMP, P.E.
REGIONAL PRE-CONSTRUCTION ENGINEER — DATE 12/29/05

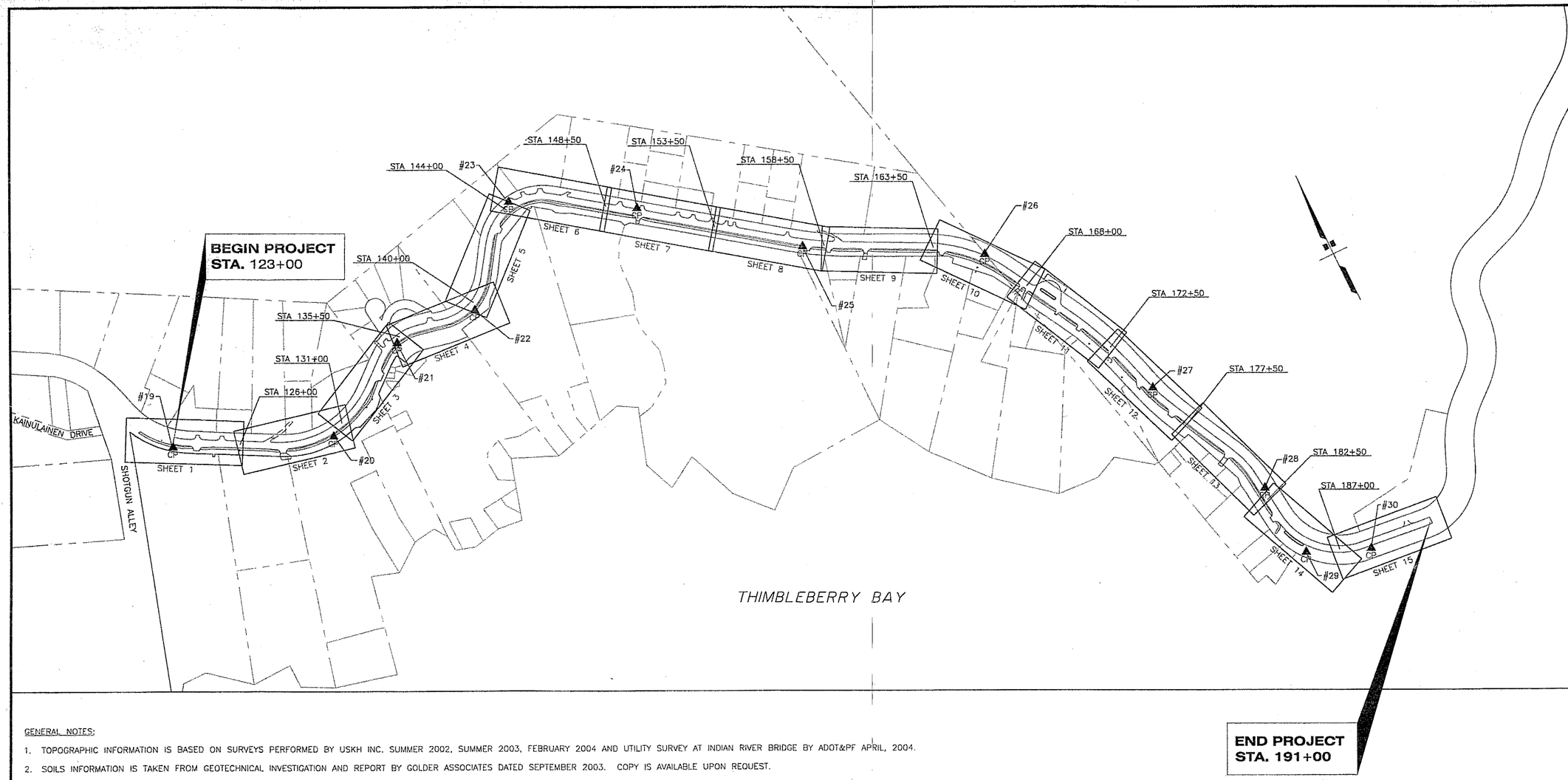
APPROVED:

MALCOM MENZIES, P.E., L.S.
DIRECTOR, SOUTHEAST REGION — DATE 12/29/05

CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:

CONSTRUCTION PROJECT MANAGER — DATE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68023/68926	2005	A1	120



PATH:

Wed, 28/Dec/05 06:12PM mhetlet
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SHEET LAYOUT AND SURVEY CONTROL

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION IS BASED ON SURVEYS PERFORMED BY USKH INC. SUMMER 2002, SUMMER 2003, FEBRUARY 2004 AND UTILITY SURVEY AT INDIAN RIVER BRIDGE BY ADOT&PF APRIL, 2004.
2. SOILS INFORMATION IS TAKEN FROM GEOTECHNICAL INVESTIGATION AND REPORT BY GOLDER ASSOCIATES DATED SEPTEMBER 2003. COPY IS AVAILABLE UPON REQUEST.
3. RIGHT-OF-WAY LINES AND PROPERTY LINES ARE SHOWN FOR GENERAL INFORMATION PURPOSES ONLY. SEE RIGHT-OF-WAY MAPS FOR LOCATION AND SURVEY CONTROL FOR PROPERTY LINES AND RIGHT-OF-WAY.
4. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY EXACT LOCATION BY OBTAINING UTILITY LOCATES, FIELD LOCATES AND EXERCISING CAUTION DURING EXCAVATION.
5. VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
6. PIPE LENGTHS AND LOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
7. UNLESS OTHERWISE NOTED, DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS ARE CURB FLOW LINE ON CURBED ROADS, EDGE OF PAVEMENT ON PAVED ROADS AND EDGE OF GRAVEL ON GRAVEL ROADS.

GENERAL SURVEY CONTROL NOTES:

1. SURVEY CONTROL FOR THIS PROJECT SHALL BE BASED ON THE POINTS SHOWN IN THE CONTROL TABLES. MONUMENTS SHOWN IN THE MONUMENT TABLES ARE FOR REFERENCE ONLY.
2. THE CONTRACTOR SHALL VERIFY THE RELATIVE POSITION OF ALL CONTROL POINTS.
3. ALL MONUMENTS AND PROPERTY MARKERS, WHETHER LISTED OR NOT, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED PRIOR TO BEING DISTURBED AND A RECORD OF MONUMENT FORM SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING. COORDINATE VALUES LISTED ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED TO RESET MONUMENTS.
4. THE LOCATION OF THE PROPOSED CONTROL MONUMENTS IS APPROXIMATE. SET PRIMARY MONUMENTS AND CASES IN THE PAVED SHOULDER IN LINE-OF-SIGHT WITH EACH OTHER AND APPROXIMATELY THREE FEET FROM THE EDGE OF PAVEMENT. THE INTENT IS TO PROVIDE A MONUMENTED TRAVERSE LINE FOR THE PROJECT CORRIDOR.

SURVEY CONTROL POINTS

PT.#	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION	REMARKS
19	297663.0892	517745.6177	142.37'	123+04.52	30.56 RT	2" BRASS CAP	DO NOT DISTURB
20	297391.0842	518417.8294	127.51'	130+19.36	28.44 RT	2" ALUMINUM CAP	DO NOT REPLACE
21	297644.3151	518859.0263	120.52'	135+29.46	15.06 RT	2" ALUMINUM CAP	DO NOT REPLACE
22	297623.5828	519237.9908	125.44'	139+09.37	25.98 RT	2" ALUMINUM CAP	DO NOT REPLACE
23	297995.9629	519586.3306	100.98'	144+10.00	24.67 LT	2" ALUMINUM CAP	DO NOT REPLACE
24	297718.6347	520095.7687	–	149+87.53	18.99 LT	2" ALUMINUM CAP	DO NOT REPLACE
25	297238.6182	520693.0619	84.29'	157+52.09	18.81 RT	2" ALUMINUM CAP	DO NOT REPLACE
26	296851.0240	521412.7986	63.17'	165+66.24	21.06 LT	2" ALUMINUM CAP	DO NOT REPLACE
27	295983.0241	521829.9706	75.58'	175+27.65	12.67 LT	2" ALUMINUM CAP	DO NOT REPLACE
28	295357.8949	522086.3949	83.12'	182+04.74	15.88 LT	2" ALUMINUM CAP	DO NOT REPLACE
29	295017.6183	522126.5787	83.32'	185+34.26	43.21 RT	2" ALUMINUM CAP	DO NOT REPLACE
30	294906.6579	522395.8074	78.98'	188+06.40	26.28 RT	2" ALUMINUM CAP	DO NOT REPLACE

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49TH
Marshall L. Hetlet
LS-9108
12-28-05
REGISTERED PROFESSIONAL LAND SURVEYOR

CHECKED BY: NCL/MLH

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

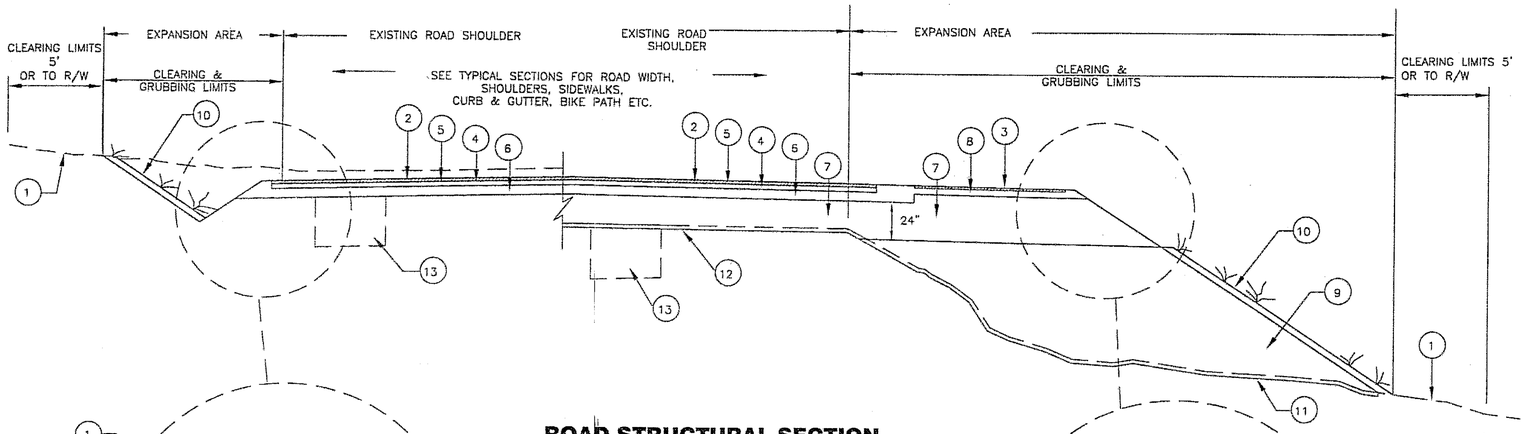
SHEET LAYOUT AND SURVEY CONTROL

PROJECT DESIGNATION NUMBER
68023/68926

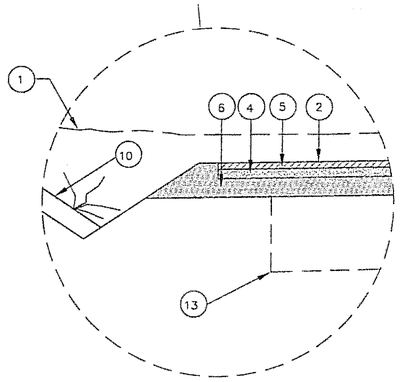
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
A2	120

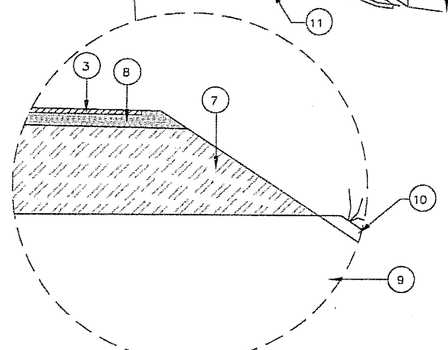
LEGEND

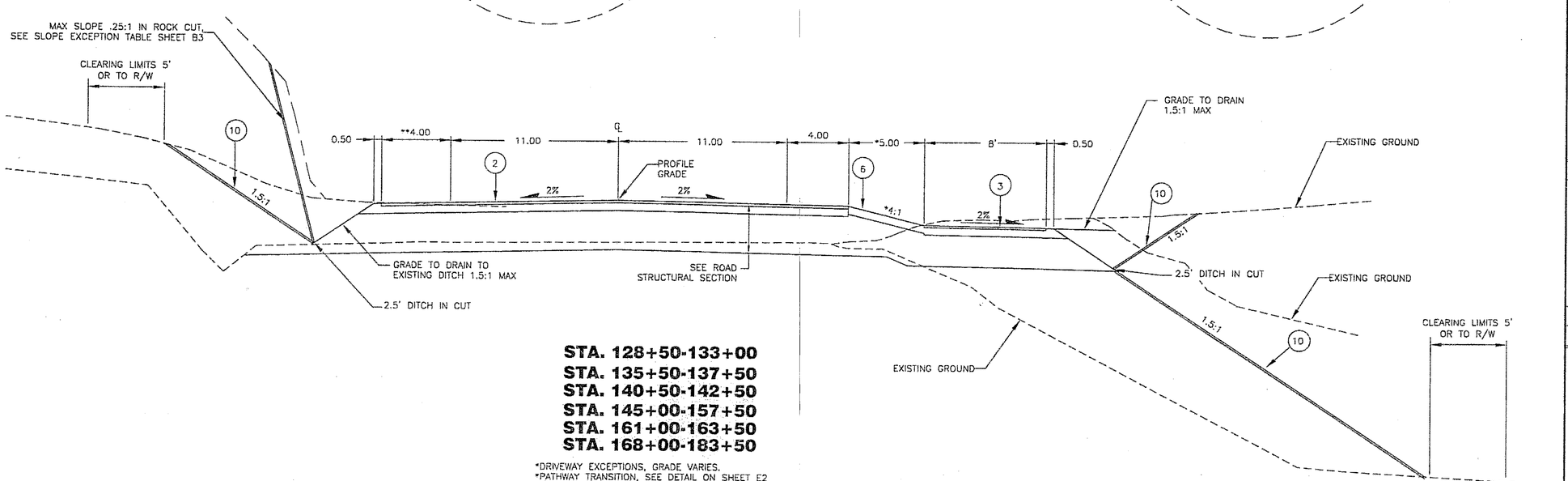
1. EXISTING GROUND
2. 2" AC PAVEMENT, TYPE II, CLASS B
3. 1 1/2" AC PAVEMENT, TYPE II, CLASS B
4. 3" ATB
5. TACK COAT
6. 6" AGGREGATE BASE COURSE, GRADING D-1
7. SELECTED MATERIAL, TYPE A OR D
8. 4" AGGREGATE BASE COURSE, GRADING D-1
9. SELECTED MATERIAL, TYPE C
10. 4" TOPSOIL, SEEDING & MATTING
11. LIMITS OF EXCAVATION, REMOVE SURFACE ORGANICS
12. LIMITS OF EXCAVATION, REMOVE EXISTING PAVEMENT
13. ADDITIONAL SUB-EXCAVATION AS DIRECTED



ROAD STRUCTURAL SECTION







STA. 128+50-133+00
STA. 135+50-137+50
STA. 140+50-142+50
STA. 145+00-157+50
STA. 161+00-163+50
STA. 168+00-183+50

*DRIVEWAY EXCEPTIONS, GRADE VARIES.
*PATHWAY TRANSITION, SEE DETAIL ON SHEET E2
**GUARDRAIL EXCEPTIONS, SEE SHEET B3

PATH:
I:\696201\DWGS\Sheets\B01_B03.dwg
Thu, 29/Dec/05 08:04AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TYPICAL SECTIONS

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA 49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

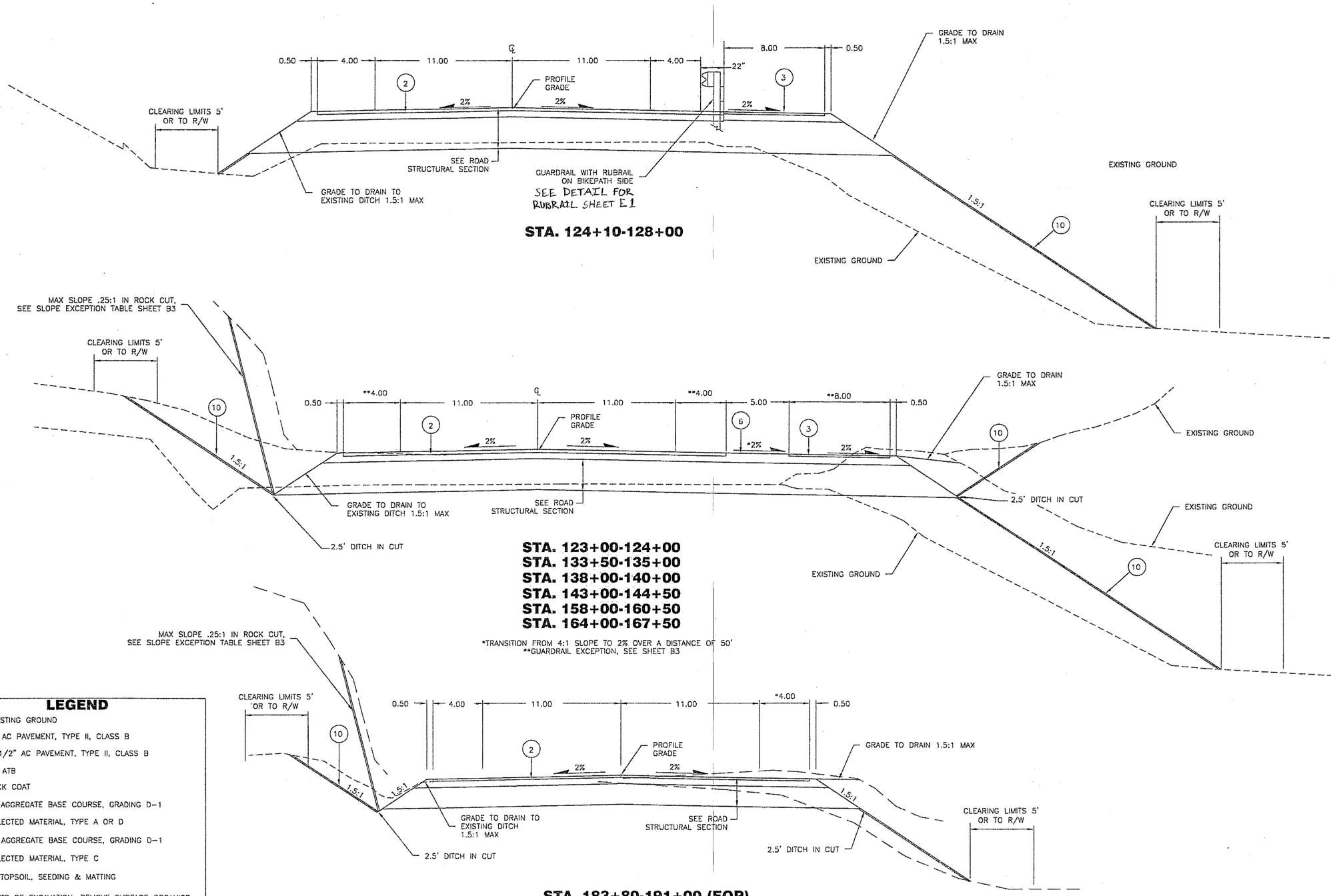
CHECKED BY: NCL

DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

TYPICAL SECTIONS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
B1	120



LEGEND

1. EXISTING GROUND
2. 2" AC PAVEMENT, TYPE II, CLASS B
3. 1 1/2" AC PAVEMENT, TYPE II, CLASS B
4. 3" ATB
5. TACK COAT
6. 6" AGGREGATE BASE COURSE, GRADING D-1
7. SELECTED MATERIAL, TYPE A OR D
8. 4" AGGREGATE BASE COURSE, GRADING D-1
9. SELECTED MATERIAL, TYPE C
10. 4" TOPSOIL, SEEDING & MATTING
11. LIMITS OF EXCAVATION, REMOVE SURFACE ORGANICS
12. LIMITS OF EXCAVATION, REMOVE EXISTING PAVEMENT
13. ADDITIONAL SUB-EXCAVATION AS DIRECTED

PATH:
I:\696201\DWGS\Sheets\B01_B03.dwg
Thu, 29/Dec/05 08:04AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TYPICAL SECTIONS

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Lagan
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

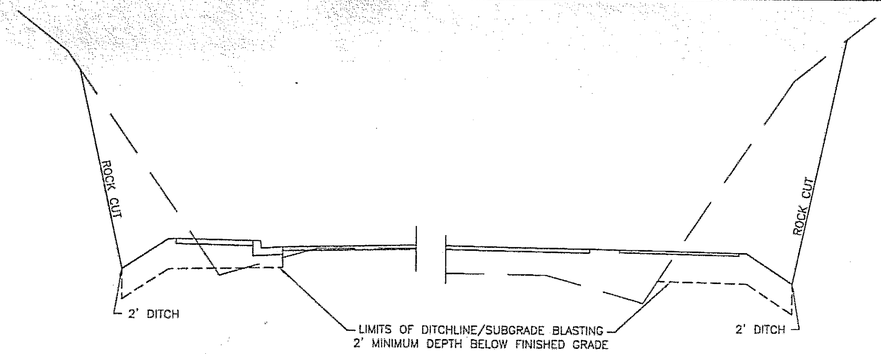
CHECKED BY: NCL

DRAWN BY: WMH

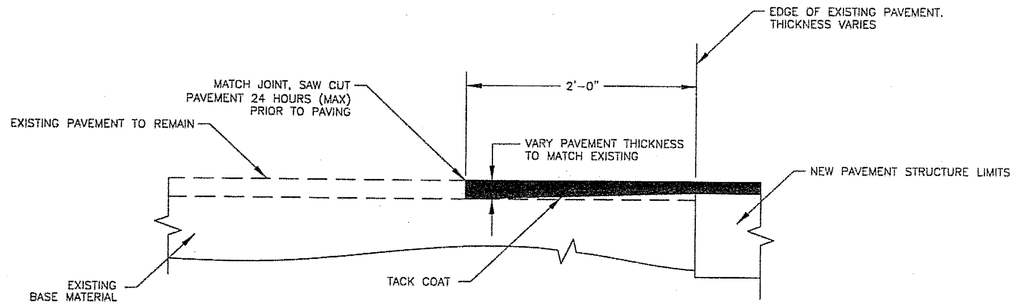
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

TYPICAL SECTIONS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
B2	120



ROCK EXCAVATION AND DITCHLINE/SUBGRADE BLASTING DETAIL (SEE SLOPE EXCEPTION TABLE)

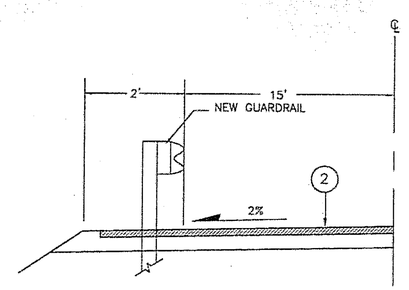


PAVEMENT MATCH JOINT DETAIL

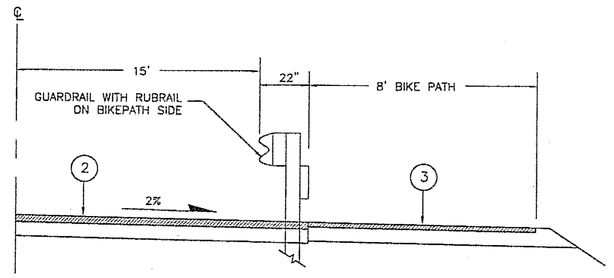
STA 123+00 (BOP)
STA 191+00 (EOP)
STA 183+75 TO STA 185+51 WHALE PARK PARKING LOT
STA 15+00 (BOP) INDIAN RIVER BRIDGE
STA 23+20 (EOP) INDIAN RIVER BRIDGE

SUPERELEVATION TRANSITION TABLE				
BFS	EFS	LENGTH	TRANSITION FROM	TRANSITION TO
121+31.57		135'	FLAT	6%
	123+46.90	155'	6%	−2%
127+81.71		153'	−2%	5.9%
	132+51.50	114'	5.9%	FLAT
134+81.50		116'	FLAT	6%
	135+91.59	116'	6%	FLAT
138+23.59		116'	FLAT	6%
	140+16.15	116'	6%	FLAT
142+48.15		116'	FLAT	6%
	145+83.07	155'	6%	−2%
156+96.43		107'	−2%	3.5%
	159+16.12	107'	3.5%	−2%
163+17.97		140'	−2%	5.2%
	166+75.89	140'	5.2%	−2%
170+35.37		101'	−2%	3.2%
	173+60.68	62'	3.2%	FLAT
175+01.68		79'	FLAT	4.1%
	176+41.67	118'	4.1%	−2%
180+07.74		154'	−2%	5.9%
	181+23.05	115'	5.9%	FLAT
183+54.05		116'	FLAT	6%
	187+49.99	155'	6%	−2%
190+95.98		155'	−2%	6%
	193+44.17	116'	6%	FLAT

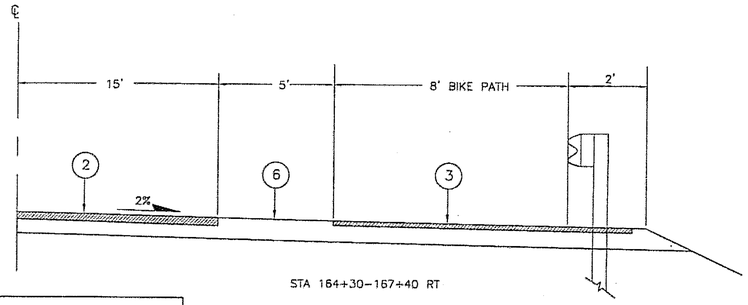
NOTE: PAVEMENT REVOLVED AROUND ROAD CENTERLINE



STA 135+50−136+87.25 LT
STA 164+29.25−165+50 LT
STA 184+22−185+06.50 RT
STA 188+61−191+00 RT
STA 185+38−196+67.50 RT



STA 124+34.25 − 127+62 RT



STA 164+30−167+40 RT

GUARDRAIL DETAIL

SLOPE EXCEPTION TABLE			
STATION FROM−TO	FORESLOPE	BACKSLOPE	REMARKS
125+90−126+10 LT	1.5:1	1:1	ROCK CUT
128+50 RT	−30:1	–	DAYLIGHT
130+50 RT	−30:1	–	DAYLIGHT
138+00 RT	−30:1	–	DAYLIGHT
138+50−139+70 RT	1.5:1	0.5:1	ROCK CUT
140+50 LT	1.5:1	1:1	ROCK CUT
141+00 RT	−30:1	–	DAYLIGHT
142+90−143+50 LT	1.5:1	0.5:1	ROCK CUT
143+10−143+60 RT	−50:1/1.5:1	1.5:1	+25:1 SLOPE TO 10' FROM EDGE OF BIKE PATH, TYPICAL DITCH
144+50−144+60 LT	FILL	–	GRADE TO MATCH EXISTING DITCH
148+40 LT	1.5:1	1:1	ROCK CUT
150+50−151+50 LT	−30:1	–	DAYLIGHT
153+00−153+50 LT	−30:1	–	DAYLIGHT
157+90−158+10 LT	1.5:1	1:1	ROCK CUT
162+70−163+30 LT	1.5:1	1:1	ROCK CUT
165+00 RT	1:1	–	
175+50 RT	−30:1	–	DAYLIGHT
176+70−177+50 LT	1.5:1	0.5:1	ROCK CUT
177+50−179+50 RT	−30:1	–	DAYLIGHT
178+20−178+60 LT	1.5:1	0.5:1	ROCK CUT
178+70 LT	1.5:1	1:1	ROCK CUT
181+00−182+00 RT	−30:1	–	DAYLIGHT
189+00 RT	−30:1	–	DAYLIGHT

PATH:
I:\696201\DWGS\Sheets\B01_B03.dwg
Thu, 29/Dec/05 08:04AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TYPICAL SECTIONS

PREPARED BY: USKH INC.
DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

TYPICAL SECTIONS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
B3	120

ESTIMATE OF QUANTITIES

Item No	Pay Item	Pay Unit	Project 68023 STA 123+00 to STA 191+00 Quantity	Project 68926 STA 15+00 to STA 23+20 Quantity	RSA 68783 STA "S" 0+00 to STA "S" 62+00 Quantity	Total Quantity
201(3B)	Clearing and Grubbing	Lump Sum	All Required	~~All Required~~ ○	0	All Required
202 (1)	Removal of Structures and Obstructions	Lump Sum	All Required	All Required	0	All Required
202 (2)	Removal Of Pavement	Square Yard	~~24,000~~ 25,058.10	~~2,300~~ ○	0	~~26,300~~ 25,058.1
202 (4)	Removal Of Culvert Pipe	Linear Foot	~~2,135~~ 1,999	0	0	1,999 ~~2,135~~
202 (6)	Removal Of Manhole	Each	1	0	0	1
202(11)	Multiple Mail Box Installation	Each	6	0	0	6
203 (3)	Unclassified Excavation	Cubic Yard	~~15,000~~ ○	~~350~~ ○	0	○ ~~15,350~~
203 (5A)	Borrow, Type A or D	Cubic Yard	~~7,700~~ ○	~~2,200~~ ○	0	9,900
203 (5B)	Borrow, Type C	Cubic Yard	~~500~~ ○	0	0	500
203(10)	Controlled Blasting	Linear Foot	~~5,500~~ 3468	0	0	3468 ~~5,500~~
203(19)	Ditch Reconditioning	Linear Foot	~~3,095~~ ○	0	0	3,095
205 (1)	Excavation For Structures	Cubic Yard	0	~~170~~ ○	0	○ ~~170~~
205 (3)	Foundation Fill	Cubic Yard	0	~~1,790~~ ○	0	○ ~~1,790~~
301 (1)	Aggregate Base Course, Grading D-1	Ton	~~13,000~~ 13676.5	~~1,200~~ ○	0	13,676.5 ~~14,200~~
306 (1)	ATB	Ton	~~4,500~~ 4653.58	~~475~~ ○	0	4,653.58 ~~4,975~~
306 (2)	Asphalt Cement, Type PG 58-28	Ton	~~183~~ 199.95	~~19~~ ○	0	199.95 ~~202~~
401 (1)	Asphalt Concrete, Type II, Class B	Ton	~~3,300~~ 4034.03	~~500~~ ○	0	4034.03 ~~3,800~~
401 (2)	Asphalt Cement, Grade PG 58-28	Ton	~~200~~ 243.04	~~30~~ ○	0	243.04 ~~230~~
401 (6)	Asphalt Price Adjustment	Contingent Sum	All Required	~~All Required~~ ○	0	All Required
402 (1)	STE-1 Asphalt for Tack Coat	Ton	~~12~~ 10.09	~~1~~ ○	0	10.09 ~~13~~
501 (1)	Class A Concrete	Lump Sum	0	All Required	0	All Required
501 (2)	Class A - A Concrete	Lump Sum	0	All Required	0	All Required
501(7)	Prestressed Concrete Structural Member (5'-6"x 141'-6" Bulb-Tee Girder)	Each	0	9	0	9
503 (1)	Reinforcing Steel	Lump Sum	0	All Required	0	All Required
503 (2)	Epoxy-Coated Reinforcing Steel	Lump Sum	0	All Required	0	All Required
505 (5)	Furnish Structural Steel Piles, 24" OD x 1/2"	Linear Foot	0	~~864~~ 621	0	621 ~~864~~
505 (6)	Drive Structural Steel Piles, 24" OD x 1/2"	Each	0	12	0	12
507 (1)	Steel Bridge Railing	Linear Foot	0	183 ~~183~~ OK	0	OK ~~183~~ 183
507 (2)	Pedestrian Railing	Linear Foot	0	366	0	366
508 (1)	Waterproofing Membrane	Lump Sum	0	All Required	0	All Required
514 (1)	Segmental Concrete Retaining Wall	Square Foot	~~225~~ 263.04	0	0	263.04 ~~225~~
515 (1)	Rockery Wall	Square Foot	~~710~~ 676	0	~~0~~ 317.2	993.2 ~~710~~
603(17-18)	18 Inch Pipe	Linear Foot	~~1,228~~ 1403.5	0	0	1403.5 ~~1,228~~
603(17-24)	24 Inch Pipe	Linear Foot	~~922~~ 900	0	0	900 ~~922~~
603(17-48)	48 Inch Pipe	Linear Foot	~~79~~ 80	0	0	80 ~~79~~
603(17-60)	60 Inch Pipe	Linear Foot	~~20~~ 15	0	0	15 ~~20~~
603(19-92x65)	92"x65" Pipe Arch	Linear Foot	165	0	0	165
604 (1)	Storm Sewer Manhole	Each	1	0	0	1
606 (1)	W-Beam Guardrail	Linear Foot	~~865~~ 947	~~90~~ ○	0	947 ~~955~~
606 (6)	Removing and Disposing of Guardrail	Linear Foot	~~3,170~~ 3,759	~~704~~ ○	0	3759 ~~3,874~~
606(11)	Extruder Terminal (ET-2000)	Each	~~11~~ 13	~~2~~ ○	0	13
606(12)	Guardrail/Bridge Rail Connection	Each	0	2	0	2
607(4)	Reconstructed Fence	Linear Foot	~~22~~ ○	0	0	○ ~~22~~
608 (1A)	Concrete Sidewalk, 4 Inches Thick	Square Yard	0	~~700~~ ○	0	○ 700
608 (1B)	Concrete Sidewalk, 6 Inches Thick	Square Yard	0	~~17~~ ○	0	○ 17

PATH:
I:\696201\DWGS\Sheets\C01-C03.dwg
Thu, 29/Dec/05 08:05AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ESTIMATE OF QUANTITIES

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
C1	120

ESTIMATE OF QUANTITIES

Item No	Pay Item	Pay Unit	Project 68023 STA 123+00 to STA 191+00	Project 68926 STA 15+00 to STA 23+20	RSA 68783 STA "S" 0+00 to STA "S" 62+00	Total Quantity
			Quantity	Quantity	Quantity	
608 (3)	Asphalt Sidewalk	Square Yard	~~5,300~~ 5,904	~~480~~ 0	0	5,904 ~~5,780~~
608 (6)	Curb Ramp	Each	~~0~~ 3	~~3~~ 0	0	3 ~~3~~ ok
609 (2)	Curb and Gutter, Type 1	Linear Foot	~~385~~ 1,638	~~1,211~~ 0	0	1638 ~~1,596~~
611 (1)	Riprap, Class II	Cubic Yard	~~121~~ 453.1	0	0	453.1 ~~121~~
611 (1B)	Riprap, Class II - Plus	Cubic Yard	0	~~1,120~~ 1081.4	0	1081.4 ~~1,120~~
615 (1)	Standard Sign	Square Foot	~~258~~ 263.49	~~6~~ 0	0	263.49 ~~264~~
615 (2)	Remove and Relocate Existing Sign	Each	~~32~~ 4	~~4~~ 0	0	4 ~~36~~
615 (5)	Delineator, Flexible	Each	~~150~~ 130	0	0	130 ~~153~~
618 (1)	Seeding	Acre	~~4~~ 3.832	~~1~~ 0	0	3.832 ~~5~~
619 (2)	Matting	Square Yard	~~15,500~~ 7066.2	0	0	7066.2 ~~15,500~~
620 (1)	Topsoil	Square Yard	~~15,500~~ 15,306.7	~~3,068~~ 0	0	15306.7 ~~18,568~~
625 (1)	Pipe Hand Rail	Linear Foot	~~350~~ 0	0	0	0 ~~350~~
627 (4)	Fire Hydrant Adjustment	Each	3	0	0	3 ~~3~~ ok
627 (6)	Fire Hydrant Relocation	Each	3	0	0	3 ~~3~~ ok
627(10)	Adjustment of Valve Box	Each	~~15~~ 22	0	0	22 ~~15~~
627(11)	Adjust Existing Air Vac Assembly	Each	~~0~~ 1	~~1~~ 0	0	1 ~~1~~ ok
627(12)	Adjustment of Drain Port	Each	~~1~~ 2	~~1~~ 0	0	2 ~~2~~ ok
628 (1)	Sheeting, Shoring and Bracing	Lump Sum	0	0	All Required	All Required
628 (2)	Furnish and Install 6" HDPE Sewer Forcemain	Linear Foot	0	0	~~3,712~~ 3,674	3,674 ~~3,712~~
628 (3)	Furnish and Install 10" DIP Gravity Sewer	Linear Foot	0	0	~~3,305~~ 3,272	3272 ~~3,305~~
628 (3.1)	Indian River Bridge Sewer Force Main	Lump Sum	~~0~~ All Req'd.	~~All Required~~ 0	0	All Required
628 (4)	Manhole Type A	Each	0	0	20	20
628 (5)	Connect to Existing Manhole	Each	0	0	1	1
628 (6)	Sewer Service, Gravity 4"	Each	0	0	~~11~~ 13	13 ~~11~~
628 (7)	Sewer Service, Gravity 6"	Each	0	0	~~3~~ 4	4 ~~3~~
628 (8)	Sewer Service, Gravity 8"	Each	0	0	1	1
628 (9)	Sewer Service, Pressure/Gravity 1 1/4"	Each	0	0	~~8~~ 7	7 ~~8~~
628 (10)	Sewer Service, Pressure/Gravity 2"	Each	0	0	~~4~~ 3	3 ~~4~~
⚠ 628 (11)	Sewer Service, Pressure 1 1/4"	Each	0	0	~~16~~ 11	11 ~~16~~
⚠ 628 (12)	Sewer Service, Pressure 2"	Each	0	0	~~3~~ 6	6 ~~3~~
628 (13)	Sewer Service, Pressure 2" Multiple Service	Each	0	0	4	4
628 (14)	Sewer Service, Pressure 2" Beale Property	Each	0 ~~0~~	0	1	1
628 (15.1)	Indian River Bridge Water Distribution Line	Lump Sum	~~0~~ All Req'd	~~All Required~~ 0	0	All Required
628 (15.2)	Indian River Bridge Water Transmission Line	Lump Sum	0	0	All Required	All Required
628 (15.3)	Existing Water Line Joint Restraint	Lump Sum	0	0	All Required	All Required
628 (15.4)	Air Release Valve Vault	Lump Sum	~~0~~ All Req'd	0	~~All Required~~ 0	All Required
⚠ 628 (16)	Water Service, 1"	Each	0	0	~~4~~ 5	5 ~~4~~
628 (17)	Water Service, 1 1/2"	Each	0	0	1	1
⚠ 628 (18)	Water Service, 2"	Each	0	0	6	6
⚠ 628 (19)	Water Service, 6"	Each	0	0	4	4
628 (19.1)	Disconnect Existing Water Service	Each	~~0~~ 2	0	~~5~~ 8	10 ~~5~~
⚠ 628 (19.2)	Furnish and Install Fire Hydrant Assembly	Each	0	0	1	1
628 (20)	Furnish and Install Blueberry Lane Pump Station	Lump Sum	0	0	All Required	All Required
628 (21)	Furnish and Install Peace Lane Pump Station	Lump Sum	0	0	All Required	All Required
628 (22)	Residential Pump Station	Lump Sum	0	0	All Required	All Required
628 (23)	Furnish and Install Blueberry Lane Generator Building	Lump Sum	0	0	All Required	All Required

PATH:
I:\G96201\DWGS\Sheets\C01-C03.dwg
Wed, 18/Jan/06 10:32AM dpoddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER 1

ATTACHMENT NUMBER 4

RECORD OF REVISIONS

No.	DATE	DESCRIPTION
⚠	1/17/06	ADDENDUM #1

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
OBS UTILITY UPGRADE RSA NO 68783

ESTIMATE OF QUANTITIES

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
C2	120

ESTIMATE OF QUANTITIES

Item No	Pay Item	Pay Unit	Project 68023 STA 123+00 to STA 191+00	Project 68926 STA 15+00 to STA 23+20	RSA 68783 STA "S" 0+00 to STA "S" 62+00	Total Quantity
			Quantity	Quantity	Quantity	
608 (3)	Asphalt Sidewalk	Square Yard	5,300	480	0	5,780
608 (6)	Curb Ramp	Each	0	3	0	3
609 (2)	Curb and Gutter, Type 1	Linear Foot	385	1,211	0	1,596
611 (1)	Riprap, Class II	Cubic Yard	121	0	0	121
611 (1B)	Riprap, Class II - Plus	Cubic Yard	0	1,120	0	1,120
615 (1)	Standard Sign	Square Foot	258	6	0	264
615 (2)	Remove and Relocate Existing Sign	Each	32	4	0	36
615 (5)	Delineator, Flexible	Each	150	0	0	150
618 (1)	Seeding	Acre	4	1	0	5
619 (2)	Matting	Square Yard	15,500	0	0	15,500
620 (1)	Topsoil	Square Yard	15,500	3,000	0	18,500
625 (1)	Pipe Hand Rail	Linear Foot	350	0	0	350
627 (4)	Fire Hydrant Adjustment	Each	3	0	0	3
627 (6)	Fire Hydrant Relocation	Each	3	0	0	3
627(10)	Adjustment of Valve Box	Each	15	0	0	15
627(11)	Adjust Existing Air Vac Assembly	Each	0	1	0	1
627(12)	Adjustment of Drain Port	Each	1	1	0	2
628 (1)	Sheeting, Shoring and Bracing	Lump Sum	0	0	All Required	All Required
628 (2)	Furnish and Install 6" HDPE Sewer Forcemain	Linear Foot	0	0	3,712	3,712
628 (3)	Furnish and Install 10" DIP Gravity Sewer	Linear Foot	0	0	3,305	3,305
628 (3.1)	Indian River Bridge Sewer Force Main	Lump Sum	0	All Required	0	All Required
628 (4)	Manhole Type A	Each	0	0	20	20
628 (5)	Connect to Existing Manhole	Each	0	0	1	1
628 (6)	Sewer Service, Gravity 4"	Each	0	0	11	11
628 (7)	Sewer Service, Gravity 6"	Each	0	0	3	3
628 (8)	Sewer Service, Gravity 8"	Each	0	0	1	1
628 (9)	Sewer Service, Pressure/Gravity 1 1/4"	Each	0	0	8	8
628 (10)	Sewer Service, Pressure/Gravity 2"	Each	0	0	4	4
628 (11)	Sewer Service, Pressure 1 1/4"	Each	0	0	17	17
628 (12)	Sewer Service, Pressure 2"	Each	0	0	2	2
628 (13)	Sewer Service, Pressure 2" Multiple Service	Each	0	0	4	4
628 (14)	Sewer Service, Pressure 2" Beale Property	Each	0	0	1	1
628 (15.1)	Indian River Bridge Water Distribution Line	Lump Sum	0	All Required	0	All Required
628 (15.2)	Indian River Bridge Water Transmission Line	Lump Sum	0	0	All Required	All Required
628 (15.3)	Existing Water Line Joint Restraint	Lump Sum	0	0	All Required	All Required
628 (15.4)	Air Release Valve Vault	Lump Sum	0	0	All Required	All Required
628 (16)	Water Service, 1"	Each	0	0	6	6
628 (17)	Water Service, 1 1/2"	Each	0	0	1	1
628 (18)	Water Service, 2"	Each	0	0	4	4
628 (19)	Water Service, 6"	Each	0	0	2	2
628 (19.1)	Disconnect Existing Water Service	Each	0	0	5	5
628 (20)	Furnish and Install Blueberry Lane Pump Station	Lump Sum	0	0	All Required	All Required
628 (21)	Furnish and Install Peace Lane Pump Station	Lump Sum	0	0	All Required	All Required
628 (22)	Residential Pump Station	Lump Sum	0	0	All Required	All Required
628 (23)	Furnish and Install Blueberry Lane Generator Building	Lump Sum	0	0	All Required	All Required

PATH:
I:\696201\DWGS\Sheets\C01-C03.dwg
Thu, 29/Dec/05 08:05AM bpoddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ESTIMATE OF QUANTITIES

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
C2	120

ESTIMATE OF QUANTITIES

Item No	Pay Item	Pay Unit	Project 68023 STA 123+00 to STA 191+00	Project 68926 STA 15+00 to STA 23+20	RSA 68783 STA "S" 0+00 to STA "S" 62+00	Total Quantity
			Quantity	Quantity	Quantity	
628 (E1)	Furnish and Install Blueberry Lane Pump Station/Building Electric	Lump Sum	0	0	All Required	All Required
628 (E2)	Furnish and Install Peace Lane Pump Station Electric	Lump Sum	0	0	All Required	All Required
628 (E3)	Rands Drive Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E4)	Indian River Road Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E5)	Monastery Street Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E6)	Portable Generator	Lump Sum	0	0	All Required	All Required
630 (1)	Geotextile, Separation	Square Yard	~~100~~ 0	0	0	~~100~~ 0
631 (2)	Geotextile, Erosion Control, Class 1	Square Yard	0	~~1,220~~ 916	0	~~1,220~~ 916
635 (1)	Insulation Board	MBM	~~2~~ 1.43	0	~~0~~ 1	~~2~~ 2.43
639 (3)	Driveway	Each	43	~~1~~ 0	0	~~44~~ 43
640 (1)	Mobilization and Demobilization	Lump Sum	All Required	All Required	All Required	All Required
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	All Required	All Required	All Required	All Required
641 (1)	Erosion and Pollution Control Administration	Lump Sum	All Required	All Required	All Required	All Required
641 (2)	Temporary Erosion & Pollution Control	Contingent Sum	All Required	All Required	All Required	All Required
641 (5)	Rock Check Dam	Each	~~82~~ 80	0	0	~~82~~ 80
641 (6)	Hand Seeding	MSF	~~4~~ 11.09	0	0	~~4~~ 11.09
641 (7)	Erosion and Pollution Control Price Adjustment	Contingent Sum	All Required	All Required	0	All Required
642 (1)	Construction Surveying	Lump Sum	All Required	All Req'd ~~All Required~~ OK	All Required	All Required
642 (3)	Three Person Survey Party	Hour	~~14~~ 3	0	~~5~~ 0	~~20~~ 3
642 (4)	Set Primary Monument	Each	~~14~~ 15	1	0	~~15~~ 16
642(10)	Monument Case	Each	14	1	0	15
643 (2)	Traffic Maintenance	Lump Sum	All Required	All Required	All Required	All Required
643 (3)	Permanent Construction Signs	Lump Sum	All Required	All Required	0	All Required
643(15)	Flagging	Contingent Sum	All Required	All Required	All Required	All Required
643(23)	Traffic Price Adjustment	Contingent Sum	All Required	All Required	~~0~~ All Req'd	All Required
643(25)	Traffic Control	Contingent Sum	All Required	All Required	All Required	All Required
643 (29)	Temporary Crossing	Lump Sum	0	All Required	0	All Required
644(1)	Field Office	Lump Sum	~~All Required~~ 0	~~All Required~~ 0	0	All Required
644 (6)	Vehicles	Lump Sum	All Required	~~All Required~~	0	All Required
660 (3)	Highway Lighting System Complete	Lump Sum	~~0~~ All Req'd	~~All Required~~ 0	0	All Required
660(11)	Traffic Loop	Each	~~0~~ 4	~~4~~ 0	0	4
670 (1)	Painted Traffic Markings	Lump Sum	All Required	~~All Required~~ 0	0	All Required
670 (8)	Recessed Pavement Marker	Each	~~175~~ 153	~~20~~ 0	0	~~195~~ 153
203(20)	Earthwork, CO 6	Lump Sum	All Required	All Required		All Required
203(21)	Additional Borrow Embankment, CO 14	Lump Sum	All Required			All Required
401(9)	Asphalt for Added Guardrail, CO 15	Lump Sum	All Required			All Required
505(12)	Pile Splice Ultrasonic Testing, CO 13	Lump Sum		All Required		All Required
606(11A)	Added W-Beam Guardrail, CO 11	Linear Foot	1,256			1,256
606(11A)	Added Extruder Terminal, CO 11	Each	8			8
627(4A)	Added Fire Hydrant Adjustment, CO 16	Lump Sum	All Required			All Required
628(2.1)	Install 4DPE Prop Inlet @ MH-4-1, CO 5	Lump Sum			All Required	All Required

Item No.	Pay Item	Pay Unit	Quantity	Project No.	Total Quantity
628(3A)	Specialized Rock Excavation, CO 4	Lump Sum	All Required	68783	All Required
628(15.4)	Air Release Valve Vault, CO 3	Each	1	68783	1
628(15.5)	Air Release Valve Complete, CO 3	Each	1	68783	1
628(21.1)	4" Gate Valve for Peace Lane Pump Station, CO 5	Lump Sum	All Required	68783	All Required
628(24)	Utilities Earthwork, CO 8	Lump Sum	All Required + All Req'd	68783 & 68023	All Required
628(E7)	Pump Station Electrical Change, CO 9	Lump Sum	All Required	68783	All Required
633(1)	Silt Fence, CO 1	Linear Foot	1,594	68023	1,594
670(1A)	Restripe Sawmill Creek Road, CO 15	Lump Sum	All Required	68023	All Required

BASIS OF ESTIMATE

ITEM NO.	PAY ITEM	FACTOR
203(3)	UNCLASSIFIED EXCAVATION	10%-15% MUCK EXCAVATION
		70%-80% COMMON EXCAVATION
		10%-15% ROCK EXCAVATION
301(1)	AGGREGATE BASE COURSE	1.96 TONS/CY
306(1)	ATB	115 LB/SY-IN
306(2)	ASPHALT MATERIAL, TYPE PG 58-28	4% OF ITEM 306(1)
401(1)	ASPHALT CONCRETE, TYPE B	115 LB/SY-IN
401(2)	ASPHALT CEMENT, TYPE PG 58-28	5% OF ITEM 401(1)
402(1)	STE-1 ASPHALT FOR TACK COAT	0.1 GAL/SY (243 GAL/TON)

PATH:
I:\696201\DWGS\Sheets\C01-C03.dwg
Wed, 18/Jan/06 12:11PM bpeddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER 1

ATTACHMENT NUMBER 5

RECORD OF REVISIONS

No.	DATE	DESCRIPTION
1	1/17/06	ADDENDUM #1

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ESTIMATE OF QUANTITIES

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
C3	120

ESTIMATE OF QUANTITIES

Item No	Pay Item	Pay Unit	Project 68023 STA 123+00 to STA 191+00	Project 68926 STA 15+00 to STA 23+20	RSA 68783 STA "S" 0+00 to STA "S" 62+00	Total Quantity
			Quantity	Quantity	Quantity	
628 (E1)	Furnish and Install Blueberry Lane Pump Station/Building Electric	Lump Sum	0	0	All Required	All Required
628 (E2)	Furnish and Install Peace Lane Pump Station Electric	Lump Sum	0	0	All Required	All Required
628 (E3)	Rands Drive Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E4)	Indian River Road Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E5)	Monastery Street Pump Station Electrical	Lump Sum	0	0	All Required	All Required
628 (E6)	Portable Generator	Lump Sum	0	0	All Required	All Required
630 (1)	Geotextile, Separation	Square Yard	100	0	0	100
631 (2)	Geotextile, Erosion Control, Class 1	Square Yard	0	1,220	0	1,220
635 (1)	Insulation Board	MBM	2	0	0	2
639 (3)	Driveway	Each	43	1	0	44
640 (1)	Mobilization and Demobilization	Lump Sum	All Required	All Required	All Required	All Required
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	All Required	All Required	All Required	All Required
641 (1)	Erosion and Pollution Control Administration	Lump Sum	All Required	All Required	All Required	All Required
641 (2)	Temporary Erosion & Pollution Control	Contingent Sum	All Required	All Required	All Required	All Required
641 (5)	Rock Check Dam	Each	82	0	0	82
641 (6)	Hand Seeding	MSF	4	0	0	4
641 (7)	Erosion and Pollution Control Price Adjustment	Contingent Sum	All Required	All Required	0	All Required
642 (1)	Construction Surveying	Lump Sum	All Required	All Required	All Required	All Required
642 (3)	Three Person Survey Party	Hour	14	6	0	20
642 (4)	Set Primary Monument	Each	14	1	0	15
642(10)	Monument Case	Each	14	1	0	15
643 (2)	Traffic Maintenance	Lump Sum	All Required	All Required	All Required	All Required
643 (3)	Permanent Construction Signs	Lump Sum	All Required	All Required	0	All Required
643(15)	Flagging	Contingent Sum	All Required	All Required	All Required	All Required
643(23)	Traffic Price Adjustment	Contingent Sum	All Required	All Required	0	All Required
643(25)	Traffic Control	Contingent Sum	All Required	All Required	All Required	All Required
643 (29)	Temporary Crossing	Lump Sum	0	All Required	0	All Required
644 (6)	Vehicles	Lump Sum	All Required	All Required	0	All Required
660 (3)	Highway Lighting System Complete	Lump Sum	0	All Required	0	All Required
660(11)	Traffic Loop	Each	0	4	0	4
670 (1)	Painted Traffic Markings	Lump Sum	All Required	All Required	0	All Required
670 (8)	Recessed Pavement Marker	Each	175	20	0	195

BASIS OF ESTIMATE

ITEM NO.	PAY ITEM	FACTOR
203(3)	UNCLASSIFIED EXCAVATION	10%-15% MUCK EXCAVATION
		70%-80% COMMON EXCAVATION
		10%-15% ROCK EXCAVATION
301(1)	AGGREGATE BASE COURSE	1.96 TONS/CY
306(1)	ATB	116 LB/SY-IN
306(2)	ASPHALT MATERIAL, TYPE PG 58-28	4% OF ITEM 306(1)
401(1)	ASPHALT CONCRETE, TYPE B	116 LB/SY-IN
401(2)	ASPHALT CEMENT, TYPE PG 58-28	6% OF ITEM 401(1)
402(1)	STE-1 ASPHALT FOR TACK COAT	0.1 GAL/SY (243 GAL/TON)

PATH:
I:\696201\DWGS\Sheets\C01-C03.dwg
Thu, 29/Dec/05 08:05AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ESTIMATE OF QUANTITIES

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA 49TH
Nathan Leigh
Nathan Leigh CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

ESTIMATE OF QUANTITIES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
C3	120

202(4) REMOVAL OF CULVERT PIPE – LINEAR FOOT

INLET	OFFSET	OUTLET	OFFSET	QUANTITY	REMARKS
123+83.47	21.46 RT	124+23.20	23.98 RT	40	
124+77.34	33.57 LT	124+80.91	54.52 RT	88	
127+00.76	22.60 LT	127+51	18.87 LT	50±	6" – FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
128+20.10	108.58 LT	128+30.45	86.07 LT	24	
129+50.40	30.42 LT	129+46.50	46.03 RT	77	
132+55±	25.21 LT	132+63±	35.00± RT	61±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
141+62.85	22.44 LT	UNKNOWN	UNKNOWN	50±	FIELD VERIFY OUTLET LOCATION & LENGTH
142+71±	22.50± LT	142+72±	50.50± RT	73±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
144+05.01	23.62 LT	144+37±	33.50± LT	37±	FIELD VERIFY OUTLET LOCATION & LENGTH
144+56.62	30.19 LT	144+91.26	41.72 RT	79	
146+35.87	21.19 LT	146+75.86	20.23 LT	40	
147+80.61	31.36 LT	147+83.22	39.41 RT	71	
148+91.14	24.68 LT	149+25.10	26.39 LT	34±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
149+46±	23.00± LT	149+46.43	51.95 RT	75±	FIELD VERIFY INLET LOCATION & LENGTH. DO NOT REPLACE
149+94.18	26.04 LT	150+20.77	26.35 LT	27	
150+34.43	33.10 RT	149+71.68	42.85 RT	64±	FIELD VERIFY OULET LOCATION & LENGTH. DO NOT REPLACE
150+60.97	31.86 RT	150+81.92	30.30 RT	20 ~~Ø~~	~~ABANDON IN PLACE~~ REMOVE
150+87.11	36.74 ~~RT~~ LT	149+54.80	48.01 RT	157	
151+84.45	30.65 LT	151+64.77	31.83 LT	20	
152+57.20	24.72 LT	152+33.16	25.45 LT	24	
153+45.27	27.75 LT	153+21±	21.00± LT	25±	FIELD VERIFY INLET LOCATION & LENGTH
154+11.39	20.50 LT	153+88.60	20.60 LT	43	DO NOT DISTURB NEARBY MAILBOX PAD
154+43±	21.00± LT	154+23±	21.00± LT	19±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
158+53±	63.50± RT	158+81±	22.50± RT	50±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
159+03±	22.00± RT	159+35±	22.50± RT	32±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
160+14.10	68.10 RT	160+51.10	54.92 RT	40	18"
162+15±	18.50± LT	162+15±	15.5± RT	34±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
168+25.71	28.98 LT	168+31.34	28.11 RT	57	
169+31.64	90.14 LT	168+97.36	32.58 RT	127	
169+84.44	26.76 RT	169+65.94	28.38 RT	20 19±	FIELD VERIFY INLET, OUTLET LOCATION & LENGTH
171+39.99	34.13 LT	171+22.50	25.30 RT	62±	FIELD VERIFY OUTLET LOCATION & LENGTH
173+04.20	38.80 LT	172+44.20	29.20 RT	91	
173+98.98	29.25 LT	173+65.25	29.99 RT	68	
177+43.49	15.13 LT	177+40.52	35.59 RT	51	
180+17.35	43.66 LT	180+81±	52.50 RT	115±	FIELD VERIFY OUTLET LOCATION & LENGTH AT MANHOLE
180+81±	52.50 RT	181+35.05	58.47 RT	47±	FIELD VERIFY INLET LOCATION & LENGTH AT MANHOLE
186+51.43	25.07 LT	186+60±	25.00± RT	50±	FIELD VERIFY OUTLET LOCATION & LENGTH
189+71.98	24.49 LT	190+11.62	23.85 LT	40	
190+59.29	31.29 LT	190+54.89	42.65 RT	74	
			TOTAL	2,135	

172+32 64.0 RT 172+11 64.0 RT 20 DRIVEWAY CULVERT

202(6) REMOVAL OF MANHOLE – EACH

STATION	OFFSET	REMARKS
180+81.16	52.41 RT	
TOTAL	1	

202(11) MULTIPLE MAILBOX INSTALLATION – EACH

EXISTING		NO. OF PEDESTALS	PROPOSED		REMARKS
STATION	OFFSET		STATION	OFFSET	
134+72.60	25.50 RT	3	134+72.20	28.09 RT	RELOCATE TO BACK OF PEDESTRIAN PATH
143+32.09	29.34 RT	3	143+32.73	26.82 RT	RELOCATE TO BACK OF PEDESTRIAN PATH
150+72.75	29.31 RT	3	150+72.75	29.31 RT	OVER EXISTING CULVERT PIPE TO BE REMOVED
160+14.23	24.58 RT	3	160+14.23	25.21 RT	RELOCATE TO BACK OF PEDESTRIAN PATH
170+76.34	25.03 RT	2	170+76.42	26.16 RT	RELOCATE TO BACK OF PEDESTRIAN PATH
189+49.71	19.36 LT	1	189+50.00	24.00 LT	
		TOTAL		6	

203(19) DITCH RECONDITIONING – LINEAR FOOT

BEGIN	END	OFFSET	QUANTITY	REMARKS
124+25	125+00	LT	75	
128+75	132+25	LT	350	
135+15	137+75	LT	260	
140+75	141+25	LT	50	
142+25	142+75	LT	50	
145+70	146+25	LT	55	
146+75	147+75	LT	100	
150+30	151+65	LT	135	
151+85	152+25	LT	40	
152+75	153+20	LT	45	
153+45	153+75	LT	30	
155+75	157+70	RT	195	
159+30	159+75	LT	45	
163+00	163+65	RT	65	
163+25	164+65	LT	140	
163+90	164+40	RT	50	
170+75	173+25	LT	250	
173+75	176+75	LT	300	
177+75	178+25	LT	50	
182+75	183+25	RT	50	
184+25	189+75	LT	550	
187+00	188+25	RT	125	
190+15	191+00	LT	85	
		TOTAL	3,095	

603(17) (19) PIPE – LINEAR FOOT

PIPE NO.	LENGTH AND SIZE 603(17-18) 18"	603(17-24) 24"	603(17-48) 48"	603(17-60) 60"	INLET STATION	INLET OFFSET (FT.)	INLET INVERT ELEVATION	OUTLET STATION	OUTLET OFFSET (FT.)	OUTLET INVERT ELEVATION	GRADE (FT./FT.)	REMARKS
P1	42				123+80	30.49 RT	136.80	124+21.5	34.30 RT	135.13	0.040	
P2	39				123+87.38	19.25 LT	135.58	124+26.21	19.25 LT	134.28	0.034	
P3		80			124+77	33.50 LT	125.80	124+80.64	46.50 RT	123.25	0.032	
P4	50				127+000.76	19.25 LT	128.50	127+50.62	19.25 LT	127.27	0.025	
P5	26				128+20.41	108.67 LT	146.31	128+30.84	85.14 LT	145.67	0.064	
P6		77			129+50.41	30.42 LT	119.80	129+46.50	46.03 RT	111.23	0.111	
P7	58				132+55	19.25 LT	120.91	132+55	38.43 RT	119.75	0.020	
P8				20	136+47.32	64.37 RT	*MTE	136+56.97	80.74 RT	79.99	*MTE	SEE SHEET E4
P9	65				141+63	19.25 LT	108.93	141+66	45.00 RT	101.77	0.111	
P10	77				142+65	21.33 LT	106.15	142+54	55.00 RT	99.00	0.093	DITCH TO DRAIN
P11	43				144+01.96	19.25 LT	98.79	144+41.44	19.25 LT	96.54	0.053	
P12			79		144+57	30.20 LT	87.13	144+91.26	41.72 RT	78.57	0.154	
P13	43				145+30	19.25 LT	91.04	145+70	19.25 LT	88.38	0.062	
P14	39				146+36	20.53 LT	83.00	146+75	19.31 LT	81.00	0.051	
P15		77			147+80.61	31.36 LT	72.26	147+83.43	45.06 RT	65.07	0.094	DITCH TO DRAIN
P16	40				148+88	19.25 LT	71.79	149+28	19.25 LT	71.05	0.019	
P17	40				149+90	19.25 LT	70.47	150+30	20.42 LT	69.67	0.020	DITCH TO DRAIN
P18	165' X 92" X 65" PIPE ARCH				150+87.34	36.39 LT	59.18	149+49.64	54.53 RT	49.50	0.046	
P19		68			151+00	32.25 RT	69.67	151+00	35.00 LT	61.50	0.121	
P20	20				151+84.45	30.65 LT	71.37	151+64.77	31.83 LT	71.14	0.011	
P21		41		OUTLET/INLET	152+25	26.73 LT	72.14	152+65	19.72 LT	74.41	0.037	DITCH TO DRAIN
P22	40				153+52	19.25 LT	76.75	153+12	19.25 LT	75.82	0.023	DITCH TO DRAIN
P23	32				154+11	19.25 LT	78.07	153+79	19.25 LT	77.38	0.022	
P24	32			OUTLET/INLET	154+20	19.25 LT	78.25	154+52	19.85 LT	78.42	0.018	
P25	10				157+71	19.25 LT	81.05	157+82	19.25 LT	80.94	0.010	SEE SHEET F8
P26	36				158+50	29.25 RT	80.78	158+85	29.25 RT	80.01	0.022	
P27	52				157+84	19.25 LT	79.18	159+36	19.25 LT	77.78	0.027	
P28	39				160+14	68.10 RT	69.83	160+51.10	54.92 RT	68.83	0.026	MAINTAIN EXISTING DRAINAGE
P29		63			162+15	19.25 LT	70.21	162+26.39	42.87 RT	61.9	0.133	
P30		74			168+25.71	28.98 LT	47.58	168+39.50	43.32 RT	42.00	0.058	
P31	138				169+31.50	90.14 LT	45.60	168+94.58	42.51 RT	41.76	0.028	
P32		20			169+90	29.80 RT	48.85	169+70	32.10 RT	48.64	0.010	
P33	73				171+39.47	34.92 LT	51.90	171+18.71	34.85 RT	49.33	0.035	
P34		107			173+04.20	38.80 LT	57.18	172+33.32	40.72 RT	53.13	0.038	
P35		78			173+98.98	29.25 LT	65.22	173+60.18	38.64 RT	60.12	0.065	
P36	55				177+43.74	19.25 LT	78.69	177+40.52	35.59 RT	76.75	0.035	
P37	10				179+16.64	19.25 LT	80.22	179+06.63	19.25 LT	80.15	0.007	GRADE ABOVE PIPE TO PROTECT EXISTING AIRVAC ASSEMBLY
P38		115			180+17.35	43.66 LT	68.50	180+81.16	52.41 RT	*MTE	*MTE	REMOVE AND REPLACE EXISTING PIPE TO MANHOLE
P39		48			180+81.16	52.41 RT	*MTE	181+35.05	58.47 RT	57.18	*MTE	REMOVE AND REPLACE EXISTING PIPE FROM MANHOLE
P40	85 ±				186+51.43	25.07 LT	76.07	*MTE	*MTE	*MTE	*MTE	EXISTING OUTFALL NOT FOUND. REMOVE AND REPLACE EXISTING PIPE.
P41	44				189+72	19.25 LT	74.34	190+16	19.25 LT	73.92	0.009	
P42		74			190+59.29	31.29 LT	66.15	190+54.89	42.02 RT	65	0.016	
TOTAL	1,228'	922'	79'	20'								

* MTE = MATCH EXISTING

PA3 20 172+32 64 RT 172+11 64 RT LOWER EXISTING

P-7A 80 134+47 22.4 LT 119 11/12 135+19 28 3/12 L 119 11/12 0.010

P-7B 134+63 30.0 RT 134+76 31.0' RT

PATH: I:\696201\DWGS\Sheets\D01_D03.dwg
Thu, 29/Dec/05 10:39AM bpaddock
PLOT: PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SUMMARY TABLES

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SUMMARY TABLES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
D1	120

515(1) ROCKERY WALL – SQUARE FOOT

BEGIN STATION	OFFSET	ANGLE POINT	OFFSET	END STATION	OFFSET	QUANTITY	REMARKS
132+73	58.5 RT	132+80	48.6 RT	133+04	48.0 RT	155	
133+75	26.5 RT	134+03	34.4 RT	134+05	42.9 RT	150	
136+50	85.2 RT	136+63	75.5 RT	137+01	92.1 RT	300	
149+38	56.0 RT			149+49	50.5 RT	60	
149+51	58.7 RT			149+60	56.1 RT	45	
					TOTAL	710	

604 (1) STORM SEWER MANHOLE – EACH

SHEET	STRUCTURE NUMBER	604(1) STORM SEWER MANHOLE TYPE 1	STATION	OFFSET	RIM ELEVATION	TYPE OF CASTING	REMARKS
F13	S-1	1	180+81.16	52.41 RT	*MTE	*MTE	REMOVE AND REPLACE EXISTING MANHOLE
TOTAL		1					

* MTE = MATCH EXISTING

606(1) W-BEAM GUARDRAIL – LINEAR FOOT

BEGIN	END	OFFSET	*QUANTITY	REMARKS
124+34.25	127+62	RT	~~263~~	254
135+50	136+87.25	LT	~~69~~	67 8' POSTS
164+30	167+40	RT	~~224~~	225 8' POSTS
164+29.25	165+50	LT	~~49~~	52
185+38	186+67.50	RT	~~66~~	67
188+61	191+00	RT	~~284~~	215
		TOTAL	~~865~~	880

*QUANTITY NOT INCLUDING 37.5' END TERMINAL

606(1) W-BEAM GUARDRAIL AT INDIAN RIVER BRIDGE – LINEAR FOOT

BEGIN		TRANSITION		TRANSITION		END		*QUANTITY	REMARKS
STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET		
16+42.81	19.64 RT	16+80.31	18.64 RT	17+28	16 RT	17+45	16 RT	65	
19+28	16 RT	19+45	16 RT	19+52.69	16.75 RT	19+90.19	17.75 RT	25	
							TOTAL	90	

*QUANTITY NOT INCLUDING END TERMINAL

606(6) REMOVING & DISPOSING OF GUARDRAIL – LINEAR FOOT

BEGIN	END	QUANTITY	REMARKS
15+50 RT	19+57.03	407	
15+50 RT	17+71.67	223	
19+16.87 RT	19+90.54	74	
124+20.08 RT	127+70.89 RT	351	
128+09.12 RT	133+16.86 RT	525	
134+90.90 RT	137+64.13 RT	264	
135+47.99 LT	136+87.26 LT	145	
142+09.31 RT	142+55.95 RT	43	
144+37.92 RT	149+74.92 RT	526	
164+15.71 RT	167+66.56 RT	340	
164+27.90 LT	165+65.50 LT	139	
177+49.34 RT	179+49.72 RT	201	
180+06.56 RT	181+76.39 RT	164	
184+22.07 RT	185+06.35 RT	90	
185+38.03 RT	186+67.55 RT	141	
188+60.94 RT	191+00 RT	241	
	TOTAL	3,874	

606(11) EXTRUDER TERMINAL (ET-2000) EACH

BEGIN	END	OFFSET	QUANTITY	REMARKS
16+42.81	17+45	RT	1	
19+28	19+90.19	RT	1	
124+34.25	127+62	RT	2	
135+50	136+87.25	LT	2	
164+30	167+40	RT	2	
164+29.25	165+50	LT	2	
185+38	186+67.50	RT	2	
188+61	191+00	RT	1	
		TOTAL	13	

607(4) RECONSTRUCTED FENCE – LINEAR FOOT

BEGIN		END		LENGTH	REMARKS
STATION	OFFSET	STATION	OFFSET		
183+86.23	37.47 RT	183+92.26	57.82 RT	22	
			TOTAL	22	

608(6) CURB RAMP – EACH

STATION	OFFSET	TYPE	QUANTITY	REMARKS
11+60.97	40.77 LT	PARALLEL	1	
11+85.72	25.33 LT	PARALLEL	1	
24+81.14	23.17 LT	PARALLEL	1	
		TOTAL	3	

NOTE: STATION AND OFFSET REFERENCE POINT IS THE MIDDLE OF LANDING AT FACE OF CURB.

609(2) CURB & GUTTER, TYPE I – LINEAR FOOT

BEGIN STATION	END STATION	OFFSET	LENGTH	COMMENTS
11+53.43	17+45	16 LT	642	
19+28	24+85.60	16 LT	569	
168+53.57	169+33.91	21 LT	169	CURB AROUND ISLAND AT TRAILHEAD PULLOUT
184+18.36	185+06.27	21 RT	216	CURB AROUND ISLAND AT WHALE PARK PULLOUT
		TOTAL	1596	

NOTE: REFERENCE POINT IS CURB RETURN RADIUS POINT.

611(1) RIP RAP CLASS II – CUBIC YARD

BEGIN STATION	END STATION	OFFSET	QUANTITY	REMARKS
124+76	124+86	RT	53	
136+52	136+88	RT	53	
164+68	165+07	LT	6	
190+50	190+60	RT	9	
		TOTAL	121	

627(4) FIRE HYDRANT ADJUSTMENT – EACH

STATION	OFFSET	REMARKS
127+63	23 LT	VALVE IN DITCH. NEEDS ACCESS PAD AND POSSIBLY CULVERT
134+50	25 LT	VALVE IN DITCH. NEEDS ACCESS PAD AND CULVERT
176+36	31 RT	NEEDS ACCESS PAD
TOTAL	3	

627(6) FIRE HYDRANT RELOCATION – EACH

FROM		TO		REMARKS
STATION	OFFSET	STATION	OFFSET	
159+52.39	28.09 RT	158+52.75	33.00 RT	NEEDS ACCESS PAD
167+98.10	25.23 RT	167+98.10	31.00 RT	NEEDS ACCESS PAD
173+07.80	23.47 RT	~~173+75.00~~ 175+08	~~32.75 RT~~ 31. RT	NEEDS ACCESS PAD
TOTAL	3			

627(10) ADJUSTMENT OF VALVE BOX – EACH

STATION	OFFSET	REMARKS
121+59	25 RT	IN PROPOSED PEDESTRIAN PATH
133+50	25 RT	IN DRIVEWAY – FIELD VERIFY LOCATION
134+81	16 LT	INSIDE SLOPE LIMITS
140+67	31 RT	INSIDE SLOPE LIMITS
158+22	30 RT	INSIDE SLOPE LIMITS
159+00	30 RT	INSIDE SLOPE LIMITS
177+90	30 RT	INSIDE SLOPE LIMITS
162+06	23 RT	IN PROPOSED PEDESTRIAN PATH
168+20	35 RT	INSIDE SLOPE LIMITS
170+09	16 RT	INSIDE SLOPE LIMITS
170+16	15 RT	INSIDE SLOPE LIMITS
173+13	32 RT	INSIDE SLOPE LIMITS
174+92	26 RT	IN PROPOSED PEDESTRIAN PATH
177+96	27 RT	IN PROPOSED PEDESTRIAN PATH
179+12	18 LT	INSIDE SLOPE LIMITS
TOTAL	15	

627(11) ADJUST EXISTING AIR VAC ASSEMBLY – EACH

EXISTING		PROPOSED		REMARKS
STATION	OFFSET	STATION	OFFSET	
19+72	35 LT	--	--	AS REQUIRED FOR BYPASS
TOTAL	1			

627(12) ADJUSTMENT OF DRAIN PORT – EACH

EXISTING		PROPOSED		REMARKS
STATION	OFFSET	STATION	OFFSET	
17+95	34 LT	--	--	AS REQUIRED FOR BYPASS
149+62	25 RT	149+63	30 RT	
TOTAL	2			

PATH: I:\696201\DWGS\Sheets\D01_003.dwg
Thu, 29/Dec/05 10:49AM bpaddock
PLOT: PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SUMMARY TABLES

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SUMMARY TABLES

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
D2	120

639(3) DRIVEWAY – EACH SEE DRIVEWAY DETAILS SHEET E1

STATION	OFFSET	WIDTH	RADIUS LT	RADIUS RT	RADIUS POINT LT		RADIUS POINT RT		PAVING LIMIT	GRADING LIMIT	LANDING GRADE	LANDING LENGTH	REMARKS
20+47.09	LT	30.00	CURB CUT						20+47.09, 35.00' LT	20+47.09, 50.40 LT	+2%	10	
124+03.07	RT	24.63	20.0	20.0	124+35.33	37.84 RT	123+70.89	35.00 RT	124+03.21, 35.00 RT	124+03.21, 35.00 RT	-2%	10	
124+05.93	LT	14.00	20.0	20.0	123+78.93	35.18 LT	124+32.93	35.00 LT	124+05.93, 35.00 LT	124+05.93, 35.00 LT	2%	10	
125+14.77	LT	15.47	20.0	20.0	124+87.04	35.00 LT	125+42.51	35.00 LT	125+14.78, 35.00 LT	125+14.78, 35.00 LT	-2%	10	
127+21.19	LT	12.00	20.0	5.0	126+94.92	35.00 LT	127+39.18	20.00 LT	127+41.88, 35.00 LT	128+49.71, 105.80 LT	2%	10	
127+92.31	RT	25.28	20.0	20.0	128+22.24	35.00 RT	127+61.90	37.86 RT	127+91.95, 35.00 RT	127+81.29, 55.82 RT	-2%	10	SOUTHWEST DRIVEWAY
~~127+92.31~~	~~RT~~	~~25.28~~	~~20.0~~	~~20.0~~	~~128+22.24~~	~~35.00 RT~~	~~127+61.90~~	~~37.86 RT~~	~~127+91.95, 35.00 RT~~	~~128+21.85, 56.49 RT~~	~~-2%~~	~~10~~	SOUTHEAST DRIVEWAY DUPLICATE
133+54.04	RT	38.50	20.0	20.0	133+14.80	35.00 RT	133+93.29	35.00 RT	133+54.05, 35.00 RT	133+54.05, 35.00 RT	-2%	10	
134+65.78	LT	10.0	10.0	10.0	134+53.95	25.00 LT	134+81.77	25.00 LT	134+69.53, 33.16 LT	134+74.80, 64.58 LT	2%	10	
135+00.76	LT	20.0	10.0	10.0	134+78.49	24.44 LT	135+17.69	25.00 LT	135+01.87, 34.79 LT	135+01.87, 34.79 LT	2%	10	
137+10.00	LT	20.0	20.0	20.0	136+80.00	35.00 LT	137+40.00	35.00 LT	137+10.00, 35.00 LT	137+10.00, 35.00 LT	2%	10	
142+85.20	RT	24.0	20.0	20.0	143+22.56	35.00 RT	142+47.93	35.00 RT	142+85.25, 35.00 RT	142+85.25, 35.00 RT	-2%	10	
144+23.46	LT	15.0	13.0	20.0	144+01.96	25.00 LT	144+41.44	25.00 RT	144+18.42, 35.00 LT	144+18.42, 35.00 LT	2%	10	
144+79.00	LT	16.0	10.0	20.0	144+62.68	25.00 LT	145+02.84	35.00 LT	144+77.11, 35.00 LT	144+77.11, 35.00 LT	2%	10	
145+50.00	LT	20.0	20.0	20.0	145+23.68	35.00 LT	145+76.32	35.00 LT	145+50.00, 35.00 LT	MATCH EXISTING	2%	10	DRIVEWAY CONSTRUCTED AFTER PROJECT SURVEY
146+60.00	LT	11.0	20.0	5.0	146+34.00	35.00 LT	146+72.11	20.00 LT	146+73.64, 35.00 LT	146+73.64, 35.00 LT	2%	10	
149+08.28	LT	15.0	20.0	20.0	148+80.78	35.00 LT	149+35.78	35.00 LT	149+08.28, 35.00 LT	149+08.28, 35.00 LT	2%	10	
150+00.68	RT	15.0	20.0	20.0	150+28.63	35.00 RT	149+73.60	35.00 RT	150+00.68, 35.00 RT	150+00.68, 45.90 RT	-2%	10	
150+09.79	LT	15.0	20.0	20.0	149+82.29	35.00 LT	150+37.29	35.00 LT	150+09.79, 35.00 LT	150+09.79, 35.00 LT	2%	10	
151+74.84	LT	12.0	20.0	20.0	151+48.84	35.00 LT	150+00.84	35.00 IT	151+74.84, 35.00 LT	151+74.84, 35.00 LT	-2%	10	
152+45.35	LT	15.0	20.0	20.0	152+17.85	35.00 LT	152+72.85	35.00 LT	152+45.35, 35.00 LT	152+45.35, 35.00 LT	2%	10	
153+32.02	LT	12.0	20.0	20.0	153+06..02	35.00 LT	153+58.02	35.00 LT	153+32.02, 35.00 LT	153+32.02, 35.00 LT	2%	10	
153+98.01	LT	12.0	20.0	10.0	153+72.22	35.00 LT	154+14.47	35.00 LT	153+98.01, 35.00 LT	153+98.01, 35.00 LT	2%	10	
154+32.70	LT	10.0	10.0	20.0	154+17.70	25.00 LT	154+57.70	35.00 LT	154+32.70, 35.00 LT	154+32.70, 35.00 LT	2%	10	
156+75.53	LT	10.0	20.0	20.0	156+50.53	35.00 LT	157+00.96	35.00 LT	156+75.53, 35.00 LT	156+75.53, 35.00 LT	2%	10	
157+77.70	RT	15.0	20.0	20.0	158+04.57	35.00 RT	157+50.84	35.00 RT	157+50.84, 35.00 RT	158+04.57, 35.00 RT	-2%	10	
158+70.00	RT	15.0	20.0	20.0	158+96.86	35.00 RT	158+43.14	25.00 RT	158+70.00, 35.00 RT	158+70.00, 35.00 RT	2%	10	
159+13.00	LT	10..5	10.0	10.0	158+83.49	25.00 LT	159+37.13	25.00 LT	158+96.55, 35.00 LT	158+11.79, 60.08 LT	2%	10	
160+36.27	RT	15.0	20.0	20.0	160+63.77	35.00 RT	160+08.77	35.00 RT	160+36.27, 35.00 RT	160+36.27, 63.84 RT	-2%	10	
163+79.00	RT	18.0	20.0	20.0	164+09.61	35.00 RT	163+48.39	35.00 RT	163+79.00, 35.00 RT	163+79.00, 35.32 RT	-2%	10	
167+81.00	RT	12.0	10.0	10.0	167+97	25.00 RT	167+65	25.00 RT	167+79.80, 35.00 RT	167+70.58, 66.95 RT	-2%	10	
168+12.00	RT	10.0	10.0	10.0	168+27	25.00 RT	167+97	25.00 RT	168+12.94, 35.00 RT	168+20.90, 69.49 RT	-2%	10	
168+46.00	LT	24.0	20.0	4.5	168+15.19	35.00 LT	168+63.57	21.50 LT	MATCH EXISTING GRADE		N/A	N/A	MATCH EXISTING PULLOUT, SEE SHEET F11
169+52.00	LT	24.0	4.5	20.0	169+33.91	21.50 LT	169+81.73	35.00 LT	MATCH EXISTING GRADE		N/A	N/A	MATCH EXISTING PULLOUT, SEE SHEET F11
169+79.00	RT	12.0	10.0	10.0	169+63	25.00 RT	169+95	25.00 RT	169+79.00, 35.00 RT	169+79.00, 35.00 RT	-2%	10	
171+01.81	RT	18.0	10.0	10.0	171+21.04	25.00 RT	170+82.46	25.00 RT	171+01.81, 35.00 RT	171+01.81, 35.00 RT	-2%	10	
172+96.00	RT	18.0	10.0	15.0	172+61.73	30.00 RT	173+13.81	25.00 RT	172+97.93, 35.00 RT	173+09.82, 50.02 RT	-2%	10	
174+69.00	RT	14.0	10.0	20.0	174+97.27	25.00 RT	174+40.15	35.00 RT	174+83.19, 35.00 RT	174+83.19, 35.00 RT	-2%	10	
176+68.82	RT	25.0	20.0	20.0	177+01.33	35.00 RT	176+36.98	35.00 RT	176+68.82, 35.00 RT	176+68.82, 35.00 RT	2%	10	
179+82.81	RT	20.0	20.0	20.0	180+15.32	35.00 RT	179+52.81	35.00 RT	179+82.81, 35.00 RT	179+82.81, 75.45 RT	-2%	10	
183+44.30	RT	25.0	20.0	20.0	183+72.65	35.00 RT	183+10.94	35.00 RT	183+44.30, 35.00 RT	183+44.30, 35.00 RT	-2%	10	
184+02.88	RT	24.0	4.5	20.0	184+18.36	21.00 RT	EXISTING CURB		MATCH EXISTING GRADE		N/A	N/A	MATCH EXISTING PULLOUT, SEE SHEET F14
185+26.44	RT	24.0	20.0	4.5	EXISTING CURB		185+10.96	21.00 RT	MATCH EXISTING GRADE		N/A	N/A	MATCH EXISTING PULLOUT, SEE SHEET F14
189+94.22	LT	18.0	20.0	20.0	189+65.00	35.00 LT	190+23.00	35.00 LT	189+94.00, 35.00 RT	189+94.00, 35.00, RT	-2%	10	
TOTAL	44												

635(1) INSULATION BOARD – MBM

SHEET	BEGIN STATION	BEGIN OFFSET	END STATION	END OFFSET	LENGTH (FEET)	WIDTH (FEET)	THICKNESS (INCHES)	QUANTITY
	124+77							0.5
	150+89.61							0.5
	AS DIRECTED BY ENGINEER							1
							TOTAL	2

642(4) SET PRIMARY MONUMENT – EACH
642(10) MONUMENT CASE – EACH

STATION	OFFSET	QUANTITY 642(4)	QUANTITY 642(10)	REMARKS
19+10	22.5' RT	1	1	
123+00	12' RT	1	1	
129+50	12' RT	1	1	
132+80	12' RT	1	1	
135+75	12' LT	1	1	
139+30	12' RT	1	1	
143+80	12' LT	1	1	
148+25	12' LT	1	1	
157+00	12' LT	1	1	
165+50	12' LT	1	1	
176+00	12' LT	1	1	
180+07	12' LT	1	1	
185+00	12' RT	1	1	
188+50	12' RT	1	1	
190+73	12' RT	1	1	
	TOTAL	15	15	

PATH:
I:\696201\DWGS\Sheets\D01_003.dwg
Thu, 29/Dec/05 10:40AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SUMMARY TABLES

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

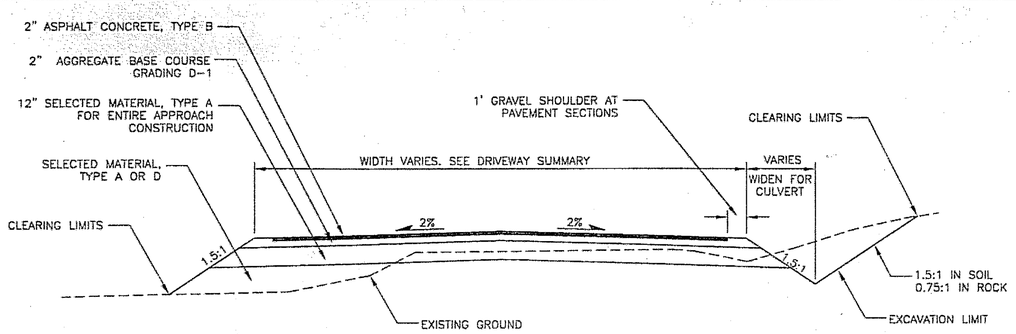
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SUMMARY TABLES

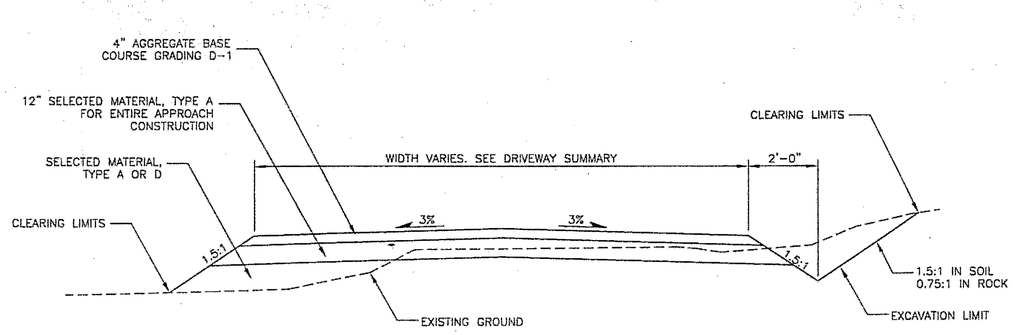
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

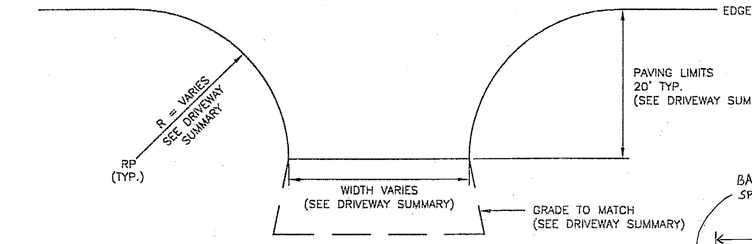
SHEET NUMBER	TOTAL SHEETS
D3	120



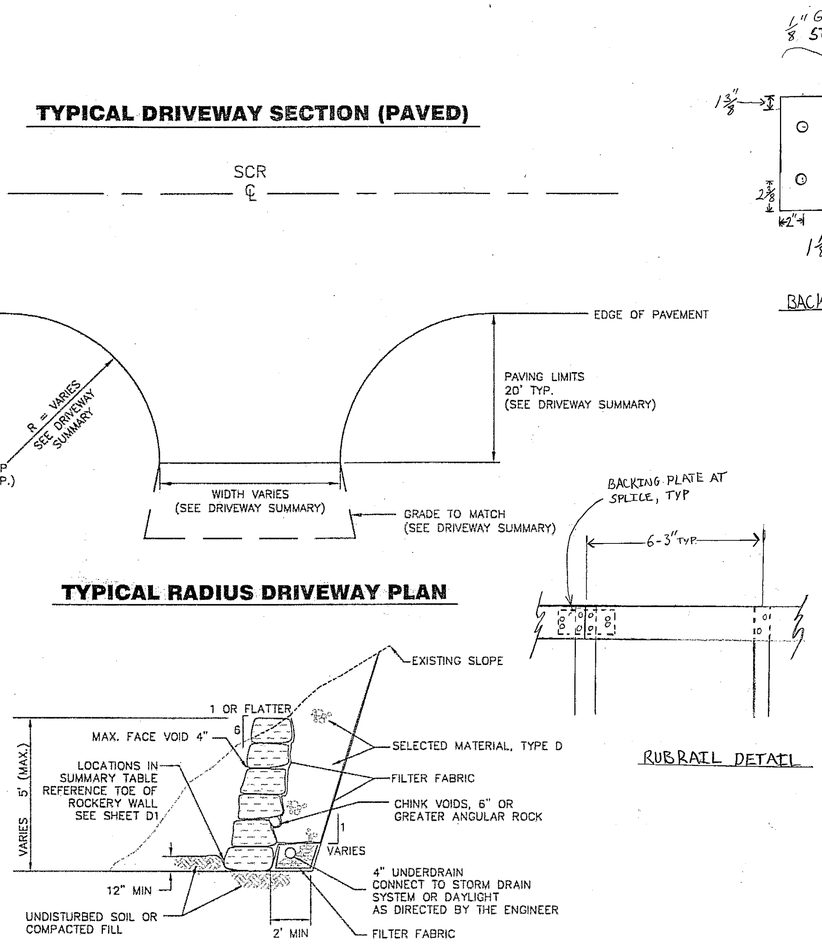
TYPICAL DRIVEWAY SECTION (PAVED)



TYPICAL DRIVEWAY SECTION (UNPAVED)



TYPICAL RADIUS DRIVEWAY PLAN



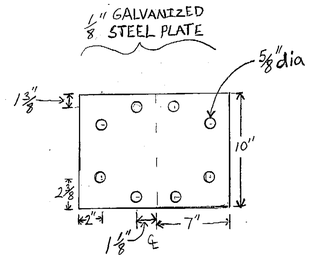
ROCKERY WALL NOTES

1. THE LONG DIMENSION OF THE ROCKS SHALL EXTEND INTO THE EARTH TO PROVIDE MAXIMUM STABILITY.
2. THE ROCK SHALL BE PLACED SO AS TO LOCK INTO TWO ROCKS IN THE TIER.

ROCKERY WALL

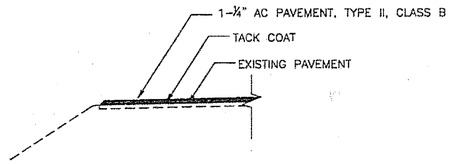
STA 132+73 RT TO 133+04 RT
STA 133+75 RT TO 134+05 RT
STA 136+50 RT TO 137+01 RT
STA 149+38 RT TO 149+60 RT

NTS



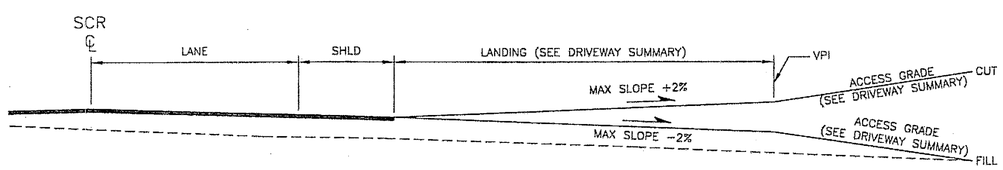
BACKING PLATE DETAIL

RUBRAIL DETAIL

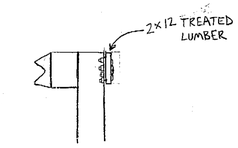


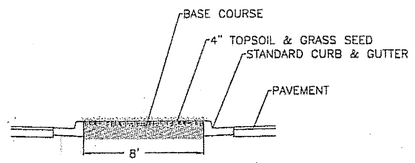
TYPICAL PULLOUT SECTION (PAVED)

STA 168+20-169+90



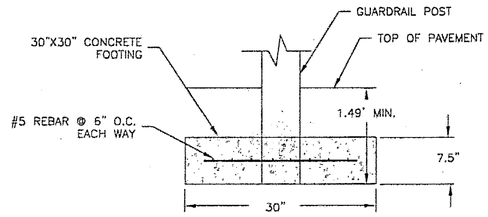
TYPICAL DRIVEWAY PROFILE





TRAFFIC ISLAND DETAIL
THIMBLE BERRY CREEK STA 169+00
WHALE PARK STA 184+00

NTS



MODIFIED GUARDRAIL FOOTING

NOTE:
MODIFIED GUARDRAIL FOOTING TO BE USED ON GUARDRAIL POSTS THAT CANNOT BE TO STANDARD DEPTH AT THIMBLEBERRY CULVERT

PATH: i:\696201\DWGS\Sheets\E01.dwg
Thu, 29/Dec/05 10:37AM bpaddock
PLOT: PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: CLT

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8385
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

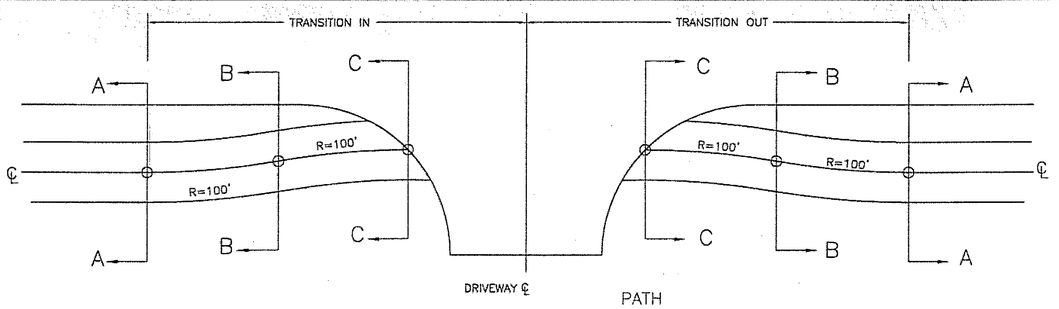
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

DETAILS

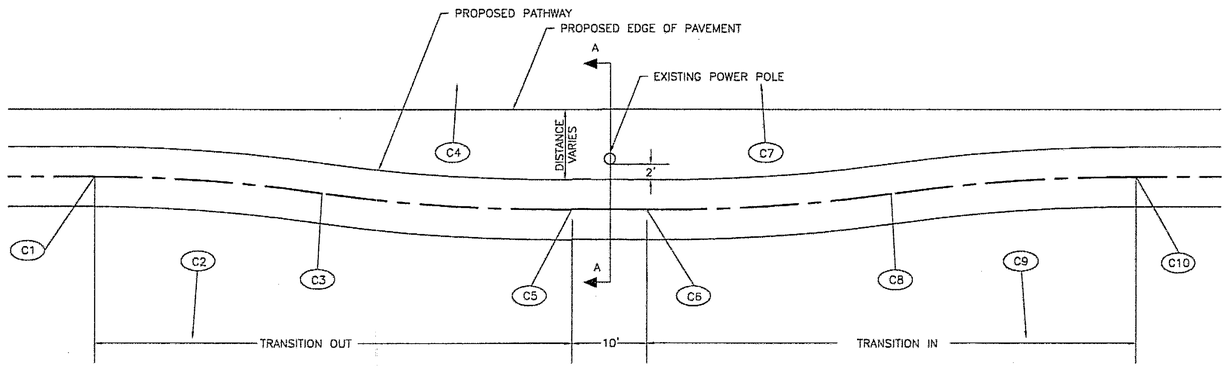
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
E1	120

PATHWAY TRANSITION AT DRIVEWAYS							
TRANSITION IN							
SECTION	STATION	OFFSET (RT)	COMMENT	SECTION	STATION	OFFSET (RT)	COMMENT
A–A	123+42.82	23.97'	NO VERTICAL TRANSITION	A–A	167+39.15	24.00'	
B–B	123+65.17	22.02'		B–B	167+56.41	22.50'	
C–C	123+85.20	21.02'		C–C	167+74.16	21.00'	
A–A	–	–	TANGENT	A–A	169+36.86	23.99'	
B–B	133+22.73	21.20'		B–B	169+54.13	22.49'	
C–C	133+29.08	21.00'		C–C	169+72.16	20.99'	
A–A	142+19.52	24.00'		A–A	170+56.50	24.00'	
B–B	142+38.86	22.50'		B–B	170+72.97	22.50'	
C–C	142+64.05	21.00'		C–C	170+91.75	21.00'	
A–A	149+52.63	24.00'		A–A	172+41.45	24.00'	
B–B	149+69.90	22.50'		B–B	172+57.85	22.60'	
C–C	149+87.46	21.00'		C–C	172+73.96	21.05'	
A–A	157+29.60	24.00'		A–A	174+19.47	24.00'	
B–B	157+47.78	22.40'		B–B	174+36.74	22.50'	
C–C	157+64.85	21.00'		C–C	174+54.73	21.00'	
A–A	159+88.54	24.00'		A–A	176+15.48	24.00'	
B–B	160+05.80	22.50'		B–B	176+33.99	22.36'	
C–C	160+23.05	21.00'		C–C	176+50.90	21.00'	
A–A	163+26.75	24.00'		A–A	179+31.84	24.00'	
B–B	163+42.07	22.73'		B–B	179+49.10	22.50'	
C–C	163+63.30	21.00'		C–C	179+67.09	21.00'	
				A–A	182+89.97	24.00'	
				B–B	183+07.24	22.50'	
				C–C	183+25.23	21.00'	

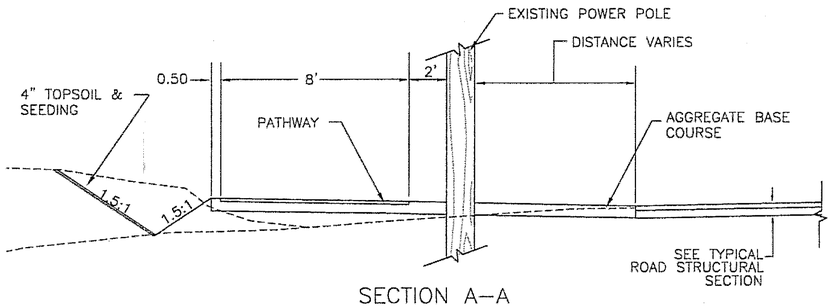
PATHWAY TRANSITION AT DRIVEWAYS							
TRANSITION OUT							
SECTION	STATION	OFFSET (RT)	COMMENT	SECTION	STATION	OFFSET (RT)	COMMENT
C–C	124+45.14	24.07'	TRANSITION AROUND END TERMINAL OF GUARDRAIL. NO VERTICAL TRANSITION.	C–C	163+94.69	21.01'	
B–B	124+60.23	22.47'		B–B	164+13.61	22.73'	
A–A	124+73.90	20.84'		A–A	164+28.94	24.00'	
C–C	127+21.37	20.83'	TRANSITION AROUND END TERMINAL OF GUARDRAIL. NO VERTICAL TRANSITION.	C–C	168+17.84	21.00'	
B–B	127+40.35	22.58'		B–B	168+34.59	22.50'	
A–A	127+55.31	24.16'		A–A	168+51.35	24.00'	
C–C	128+08.79	21.00'		C–C	169+85.85	20.97'	
B–B	128+25.31	22.50'		B–B	170+03.09	22.47'	
A–A	128+41.71	24.00'		A–A	170+20.35	23.97'	
C–C	133+79.01	21.00'		C–C	171+11.74	21.00'	
B–B	134+02.57	22.50'		B–B	171+30.52	22.50'	
A–A	134+20.57	24.00'		A–A	171+47.00	24.00'	
C–C	143+06.44	21.00'		C–C	173+04.51	21.02'	
B–B	143+31.63	22.50'		B–B	173+25.11	22.59'	
A–A	143+50.97	24.00'		A–A	173+41.59	24.00'	
C–C	150+13.90	21.00'		C–C	174+88.26	21.08'	
B–B	150+32.34	22.50'		B–B	175+08.00	22.36'	
A–A	150+49.60	24.00'		A–A	175+26.51	24.01'	
C–C	158+82.85	21.00'	NO VERTICAL TRANSITION	C–C	176+87.05	21.00'	
B–B	158+98.76	22.50'		B–B	177+05.04	22.50'	
A–A	159+16.91	24.00'		A–A	177+22.30	24.00'	
C–C	160+49.47	21.02'		C–C	180+00.04	21.00'	
B–B	160+69.91	22.47'		B–B	180+21.31	22.86'	
A–A	160+87.18	23.97'		A–A	180+35.58	24.00'	



DRIVEWAY PATHWAY TRANSITION



PATHWAY TRANSITION AT POWER POLE							
TRANSITION OUT				TRANSITION IN			
POINT	STATION	OFFSET	POINT DESCRIPTION	POINT	STATION	OFFSET	POINT DESCRIPTION
C1	131+90.03	24.00' RT	BEGIN TRANS OUT/PC	C6	132+40.87	28.39' RT	BEGIN TRANS IN/PC
	145+32.69	24.00' RT			146+42.90	28.39' RT	
C2	131+90.03	124.00' RT	RADIUS POINT/ R=100'	C7	132+42.18	71.60' LT	RADIUS POINT/ R=100'
	145+32.69	199.00' RT	RADIUS POINT/ R=175'		146+44.51	196.61' LT	RADIUS POINT/ R=225'
C3	132+06.03	25.74 RT	PRC	C8	132+59.84	27.03' RT	PT
	146+10.80	27.07' RT			146+75.87	26.20' RT	PRC
C4	132+30.29	71.61' LT	RADIUS POINT/ R=100'	C9	–	–	RADIUS POINT/ R=225'
	146+34.51	196.68' LT	RADIUS POINT/ R=225'		147+07.22	249.00' RT	
C5	132+31.46	28.38' RT	END TRANS OUT/PT	C10	–	–	END TRANS IN/PT
	146+32.90	28.31' RT			147+07.22	24.00' RT	



PATHWAY AROUND UTILITY POLE DETAIL

PATH:
I:\696201\DWGS\Sheets\E02.dwg
Thu, 29/Dec/05 08:07AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WMH

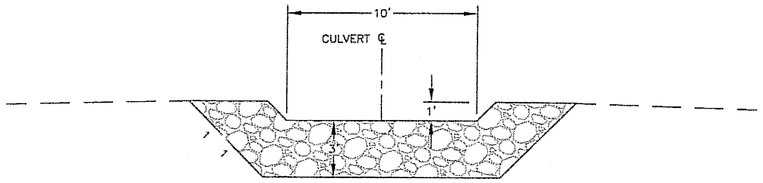
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

DETAILS

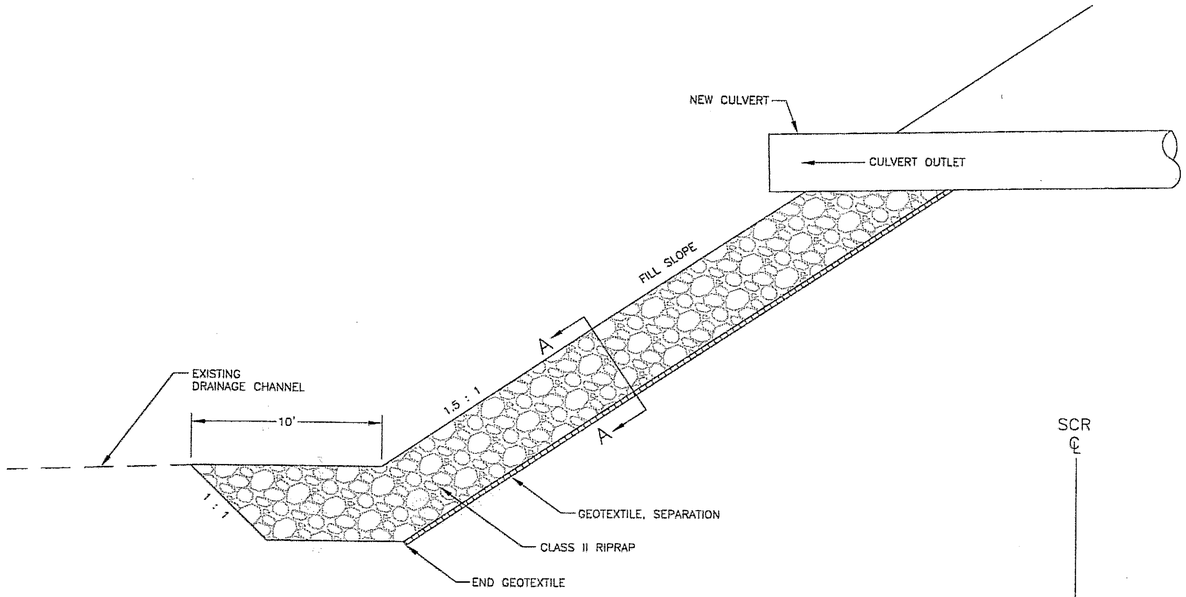
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
E2	120



SECTION A–A

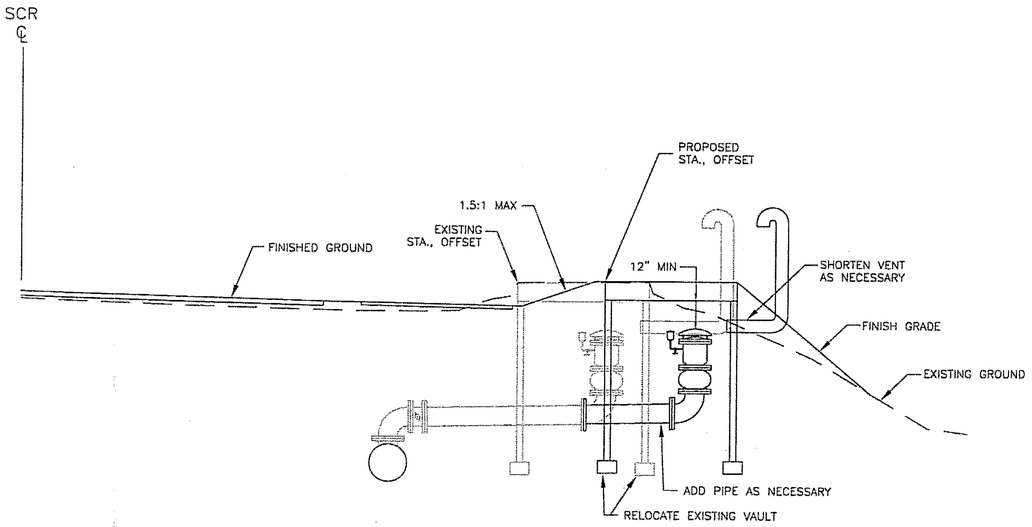


SECTION

CULVERT OUTLET SPILLWAY DETAILS

CULVERT OUTLET SPILLWAYS WILL BE MEASURED AND PAID FOR UNDER ITEM 611(1) RIPRAP CLASS II. NO OTHER MEASUREMENT OR PAYMENT WILL BE MADE.

NOTE: DO NOT SCALE FROM THESE PLANS – USE DIMENSIONS



AIR VAC ASSEMBLY ADJUSTMENT

PATH:
I:\696201\DWGS\Sheets\E03.dwg
Thu, 29/Dec/05 08:07AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

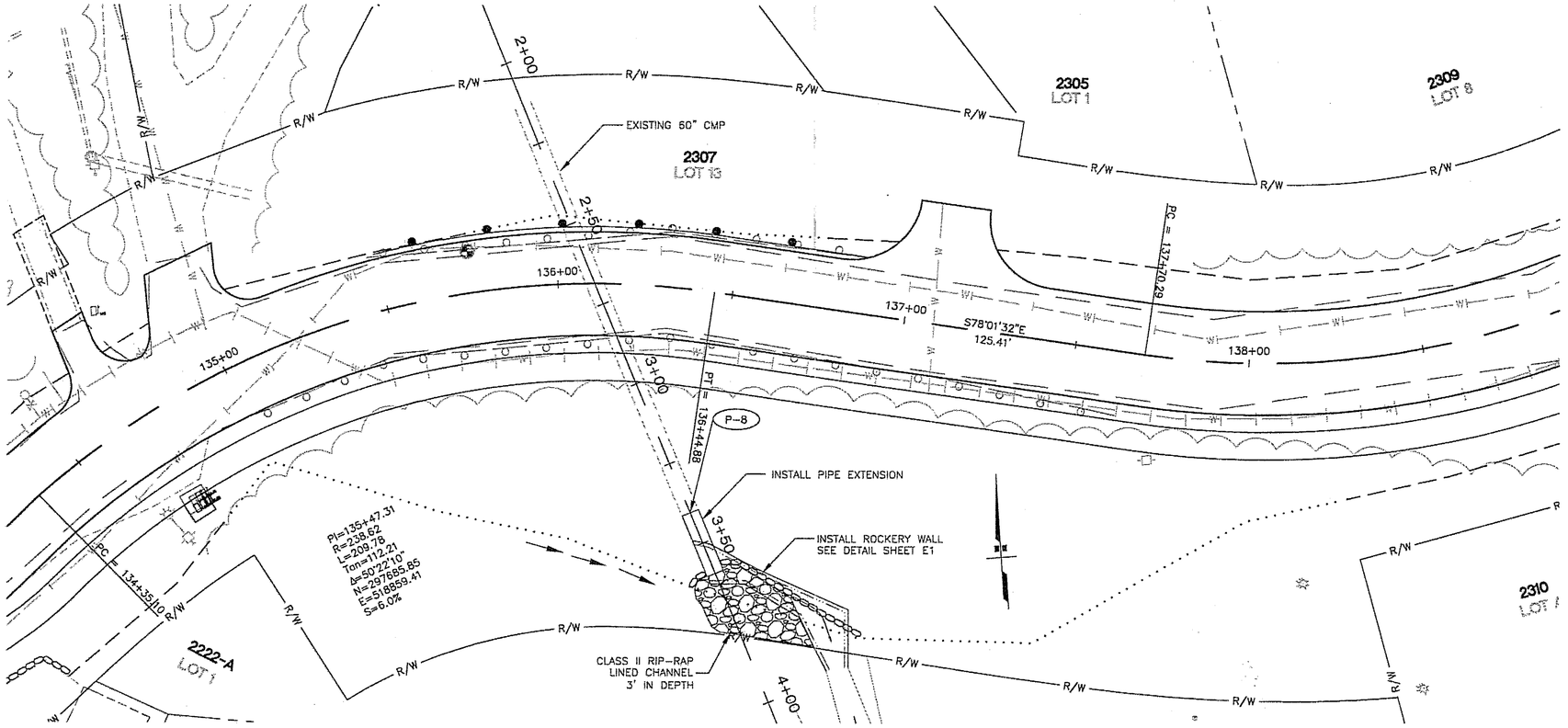
CHECKED BY: NCL

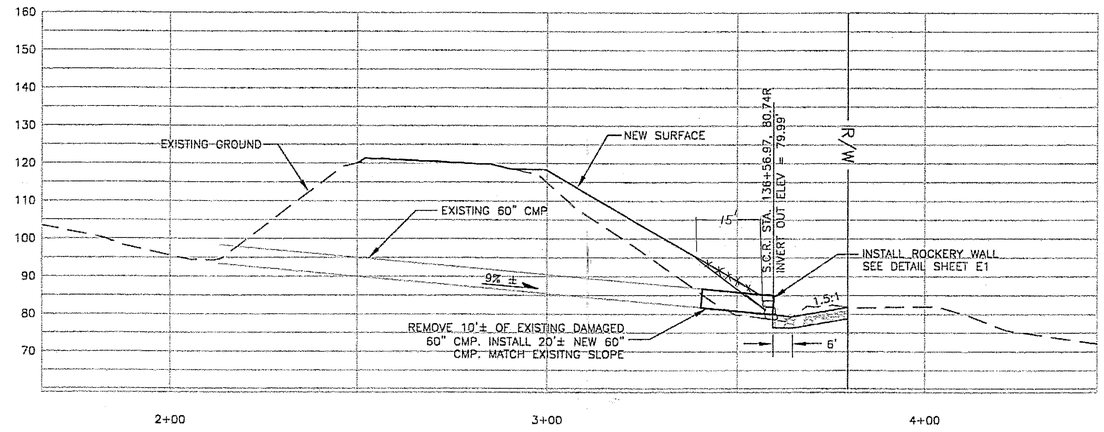
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

DETAILS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
E3	120





PATH:
I:\696201\DWGS\Sheets\E04.dwg
Thu, 29/Dec/05 08:07AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

CULVERT DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leiter
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

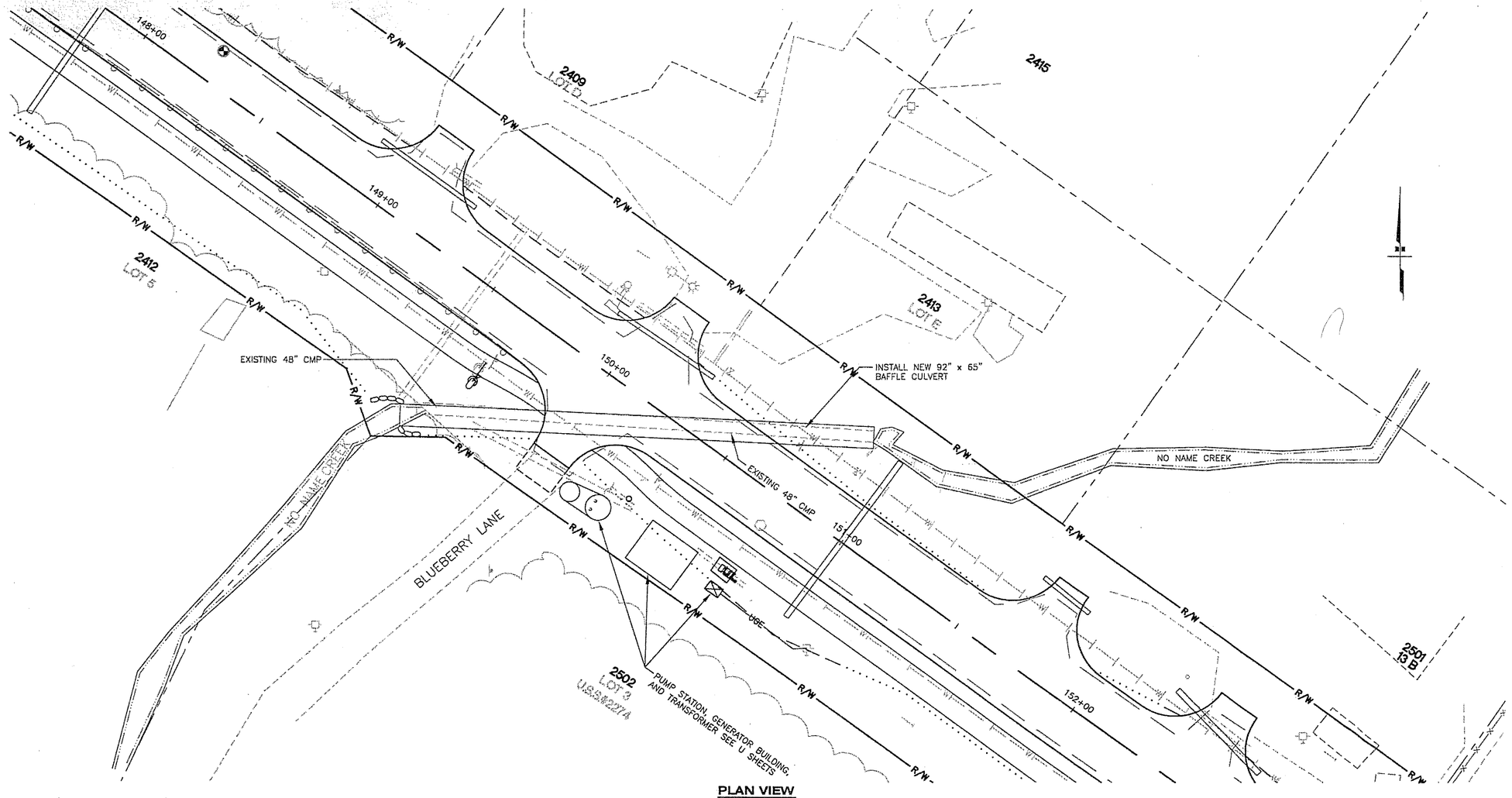
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

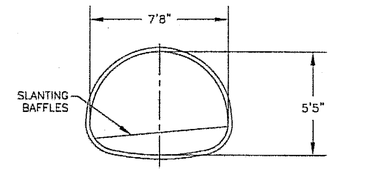
CULVERT DETAILS
STA. 136+00

PROJECT DESIGNATION NUMBER
68023/68926

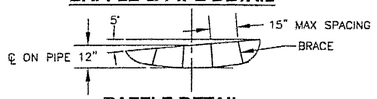
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
E4	120



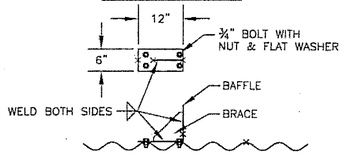
PLAN VIEW



BAFFLE & PIPE DETAIL



BAFFLE DETAIL



BRACE DETAIL

DETAIL NOTES:

1.) ALL BAFFLES UNIFORMLY SLANT THE SAME DIRECTION.

2.) TOP EDGE OF BAFFLE SHALL BE CANTED 5 DEGREES FROM HORIZONTAL. SEE TABLE FOR HEIGHT OF BAFFLE ON CENTERLINE OF PIPE.

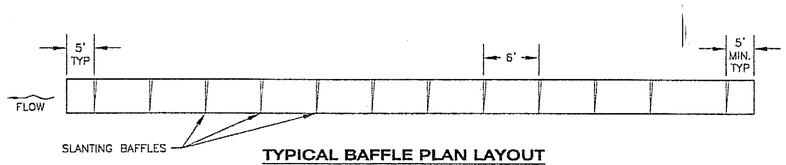
3.) ALL BAFFLES AND BRACES SHALL BE MANUFACTURED FROM ¼" ~~SHEET ALUMINUM.~~ 14 GAUGE STEEL

4.) EACH BAFFLE SHALL HAVE A MINIMUM OF 4 BRACES WITH A MAXIMUM SPACING OF 15".

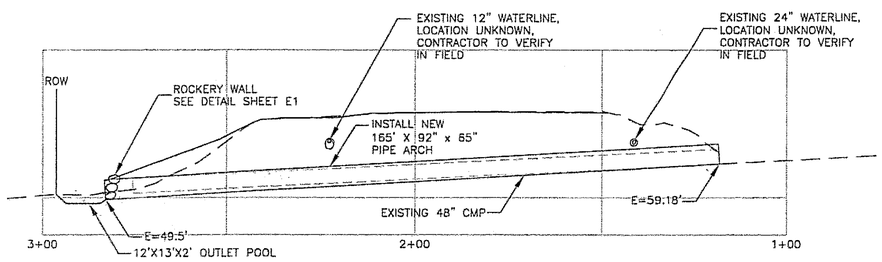
5.) IF NECESSARY, MOVE LAST UPSTREAM BAFFLE TO ALLOW FOR 5' MINIMUM SPACING FROM END OF PIPE.

6.) ALL DIMENSIONS ON THIS SHEET ARE NOMINAL– BAFFLES SHALL BE MANUFACTURED TO FIT PARTICULAR PIPE.

7.) PIPE IS 14 GAGE (0.079") ALUMINIZED STEEL W/ 3"x1" CORRUGATION



TYPICAL BAFFLE PLAN LAYOUT



PROFILE

PROFILE NOTES:

1) SUPPORT AND PROTECT UTILITIES AS REQUIRED.

2) 4"x8'x16' BOARD INSULATION BETWEEN CULVERT AND WATERLINE. TO BE CENTERED ALONG WATERLINE.

PATH:
I:\696201\DWGS\Sheets\E05.dwg
Thu, 29/Dec/05 08:09AM bpoddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

CULVERT DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: CLT

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

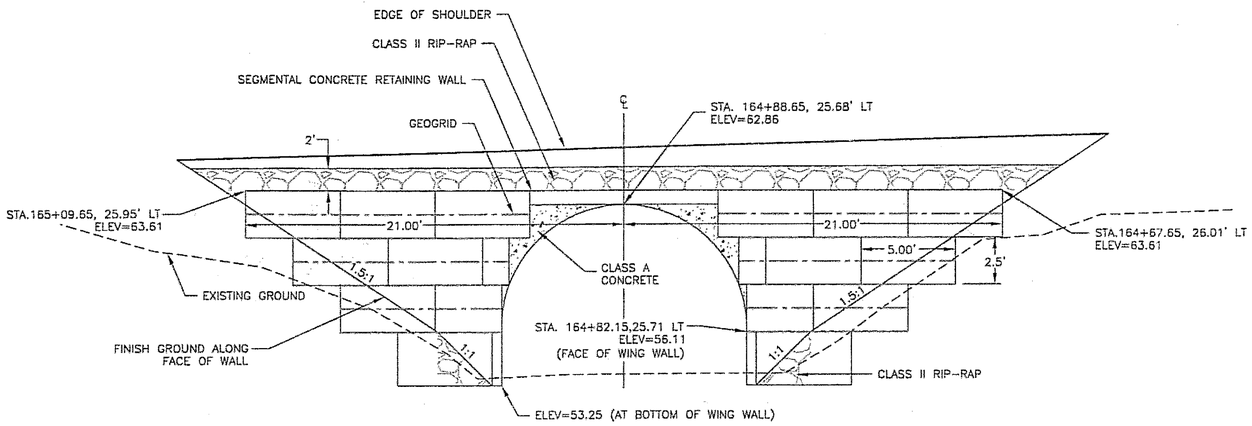
CHECKED BY: NCL

DRAWN BY: CLT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

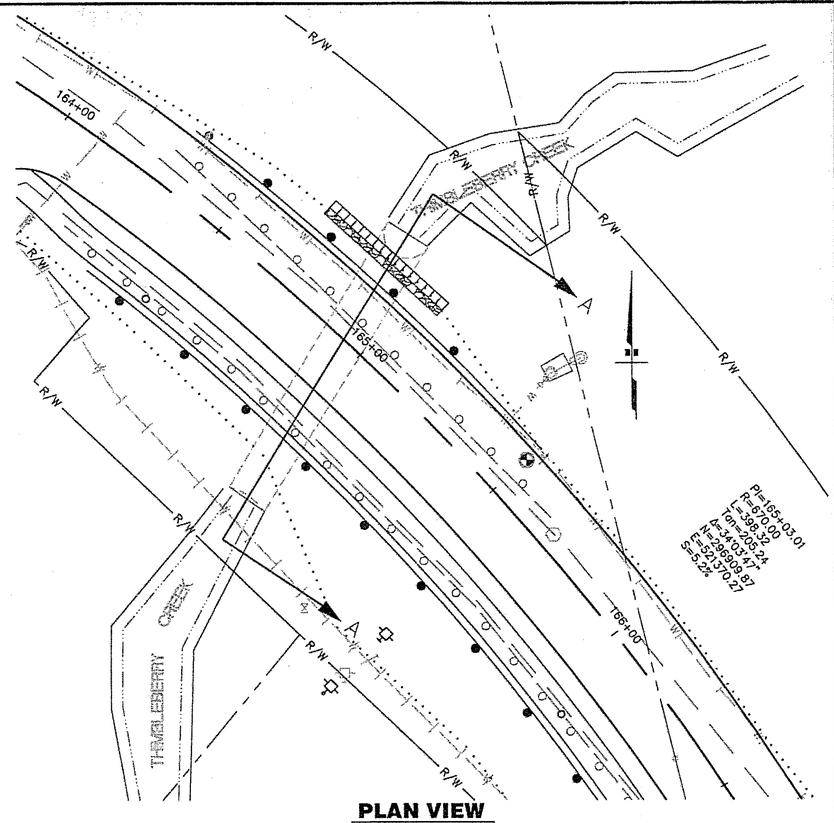
CULVERT DETAILS
STA. 150+25

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
E5	120

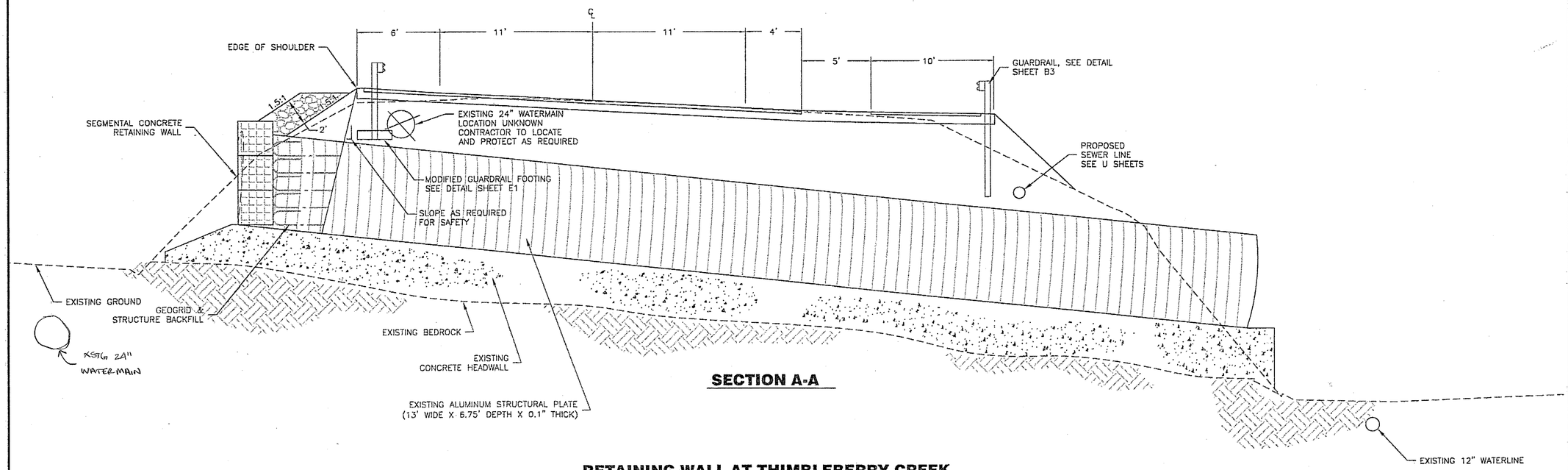


PROFILE VIEW

NOTES
1. SEE SHEET E7 FOR RETAINING WALL AT THIMBLEBERRY CREEK GEOTEXTILE PLACEMENT AND CONCRETE BLOCKS



PLAN VIEW



SECTION A-A

RETAINING WALL AT THIMBLEBERRY CREEK

PATH:
I:\696201\DWGS\Sheets\E06.dwg
Thu, 29/Dec/05 08:09AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WMH

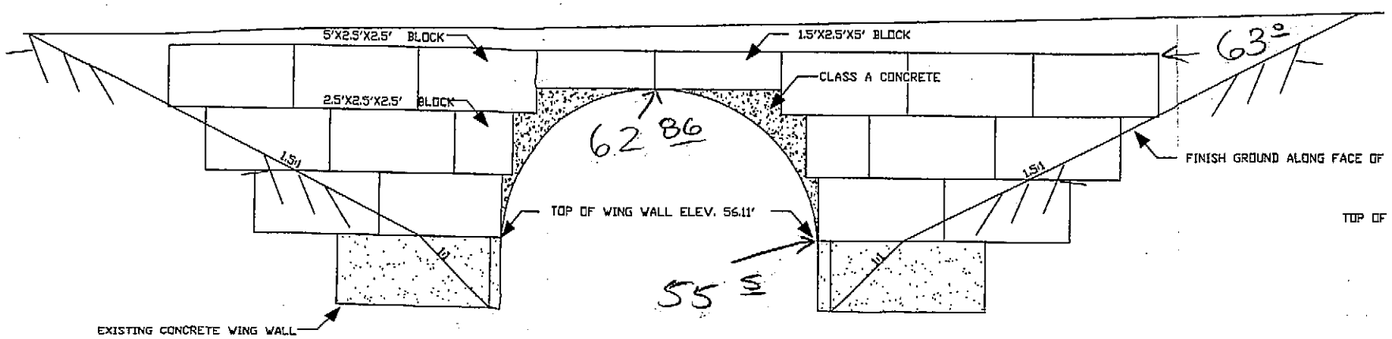
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

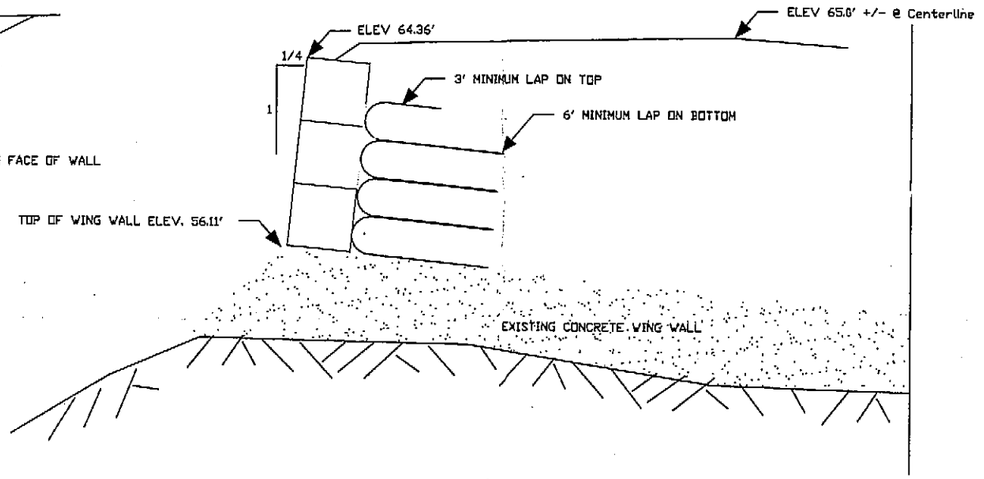
DETAILS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
E6	120

GENERAL NOTES:
1. GEOTEXTILE TO MEET OR EXCEED ATTACHED SPECIFICATION.
2. STRUCTURAL MATERIAL SHALL BE 12" MINUS UNIFORM GRADATION AS SPECIFIED
3. STRUCTURAL MATERIAL SHALL BE TRACK ROLLED TO ENGINEER'S SATISFACTION
4. NO FABRIC LAYERS SHALL BE LESS THEN 18" DEEP OR NO MORE THAN 24" DEEP
5. MATERIAL SHALL BE COMPACTED IN MAXIMUM 12" LIFTS
6. CONCRETE BLOCK SHALL BE SLOPED AT 1/4:1 AS SHOWN
7. SLOPE OF LAYERS AND OTHER PLACEMENT DETAILS AS DIRECTED BY ENGINEER

DISCLAIMER: ENGINEER DOES NOT CERTIFY GRADE DATA OR OTHER WORK ASSOCIATED WITH THIS CONSTRUCTION





LUDINGTON PROFESSIONAL SERVICES

3003 BARKER STREET
BOX 6417 SITKA, ALASKA 99835
PHONE: (907) 747-3342

EMAIL: miltonludington@hotmail.com

BY	DATE	REV	DESCRIPTION OF CHANGE
MGL	7-12-06	1	BLOCK DETAIL/ELIMINATE WATERLINE/FABRIC DEVELOPMENT LENGTH

RECORD OF REVISIONS

DESIGNED: MGL
DRAWN: MGL
CHECKED:
DATE OF PLAT:
SCALE: NOT TO SCALE
DRAWING NAME: BYPASS ROADWAY.DWG
PROJECT NO. 456-B01

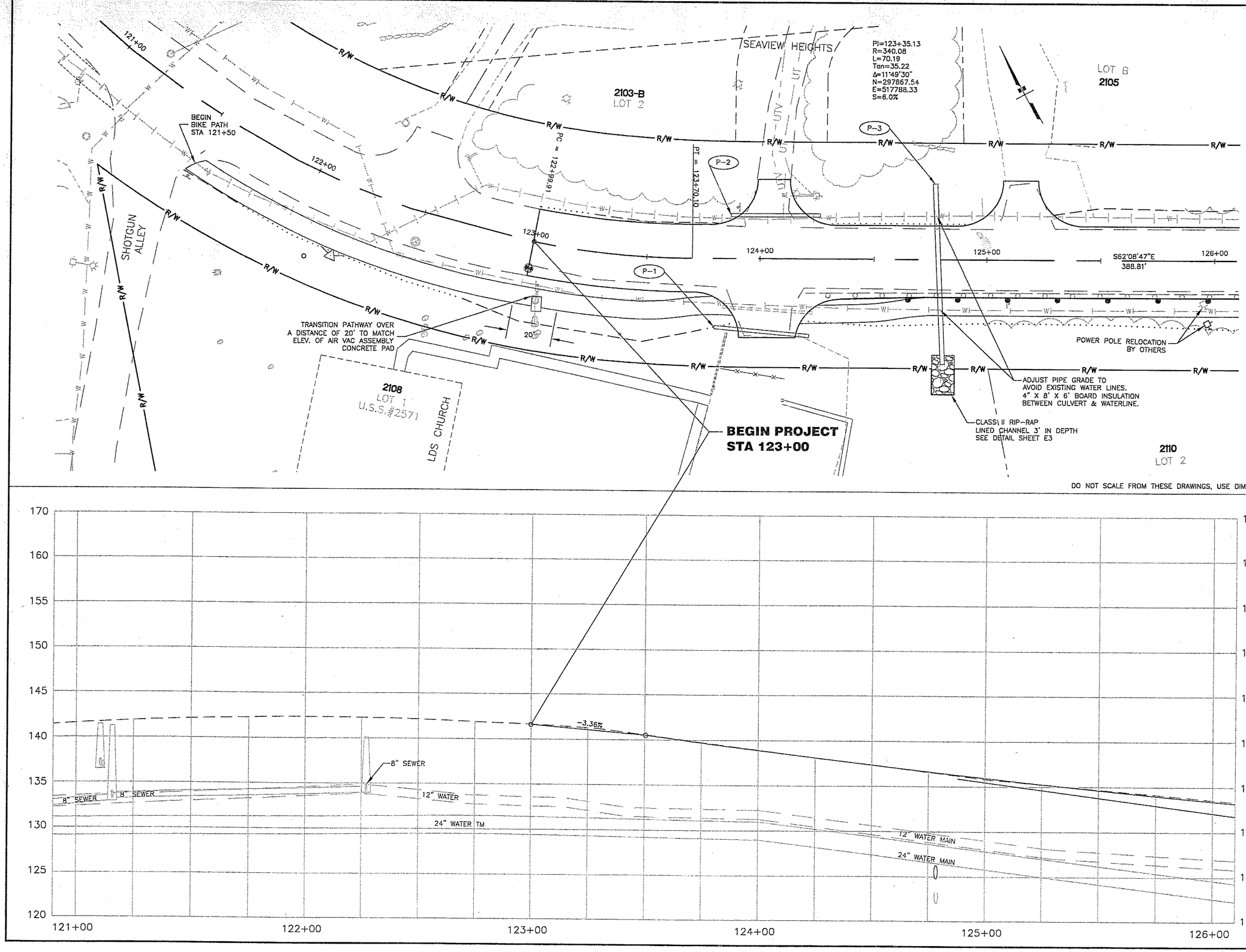
SAWMILL CREEK ROAD PROJECT

RETAINING WALL AT THIMBLEBERRY CREEK
GEOTEXTILE PLACEMENT AND CONCRETE BLOCKS

CLIENT: S&S CONTRACTING

STATE OF ALASKA
MILTON G. LUDINGTON
CE 8435
REGISTERED PROFESSIONAL ENGINEER

SHEET E7 TOTAL 121



PATH:
I:\696201\DWGS\Sheets\F01.dwg
Thu, 29/Dec/05 08:10AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

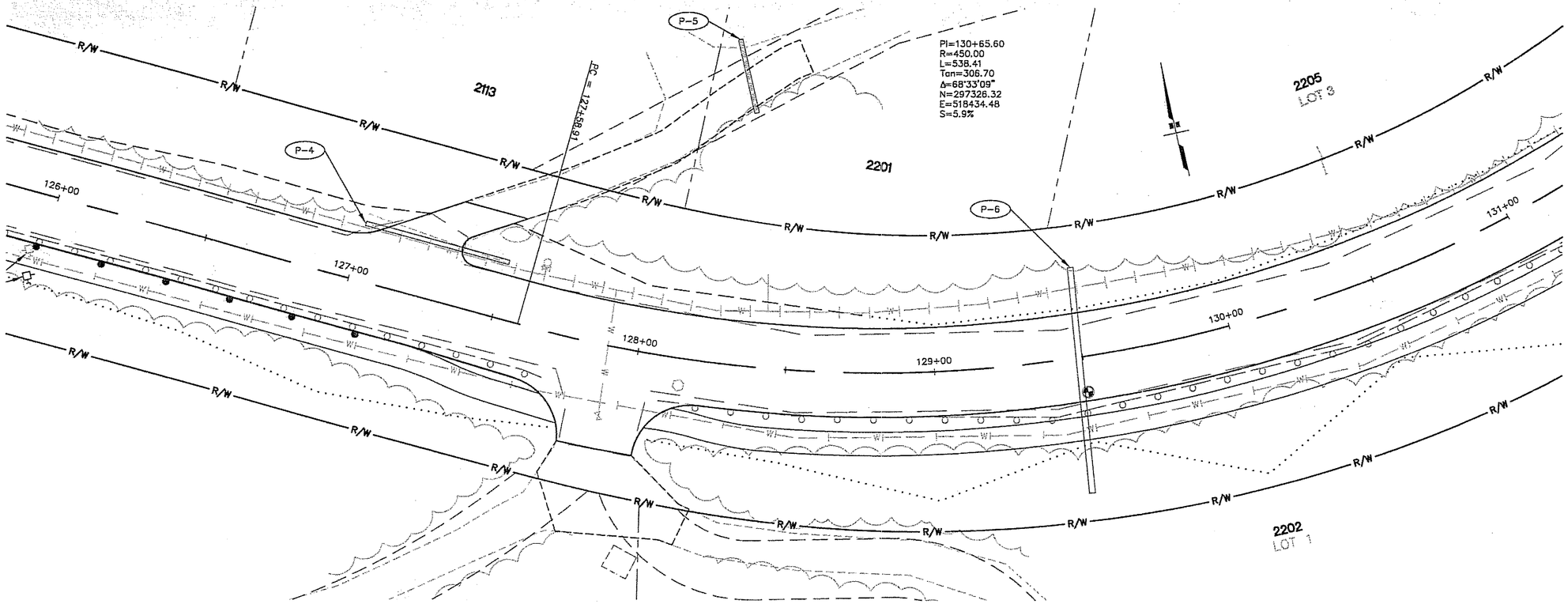
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

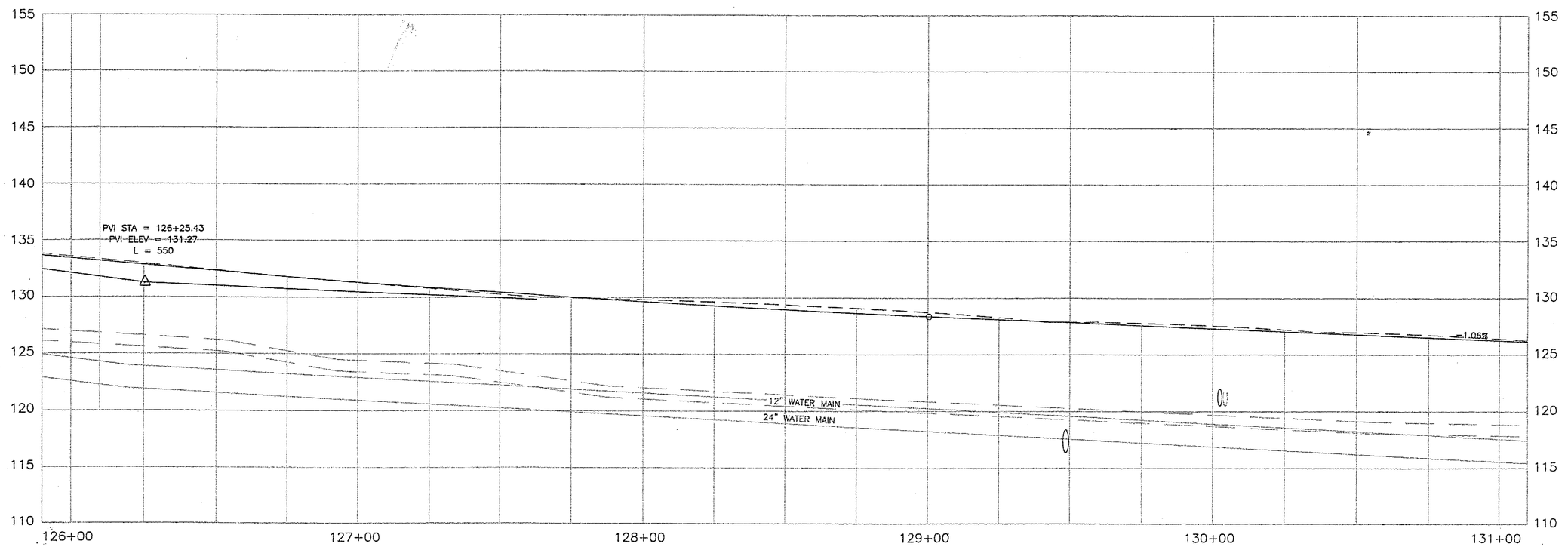
ROADWAY PLAN & PROFILE BOP TO STA. 126+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F1	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F02.dwg
Thu, 29/Dec/05 08:10AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Lagerl
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WMH

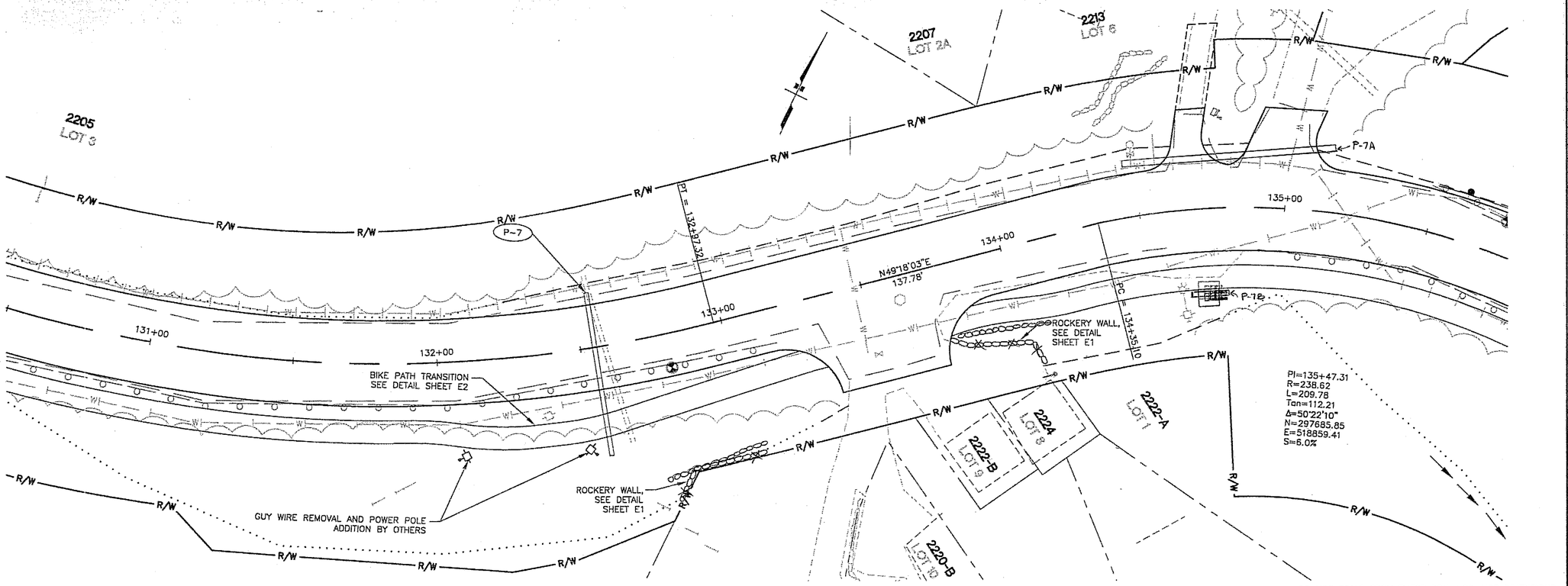
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 126+00 TO STA. 131+00

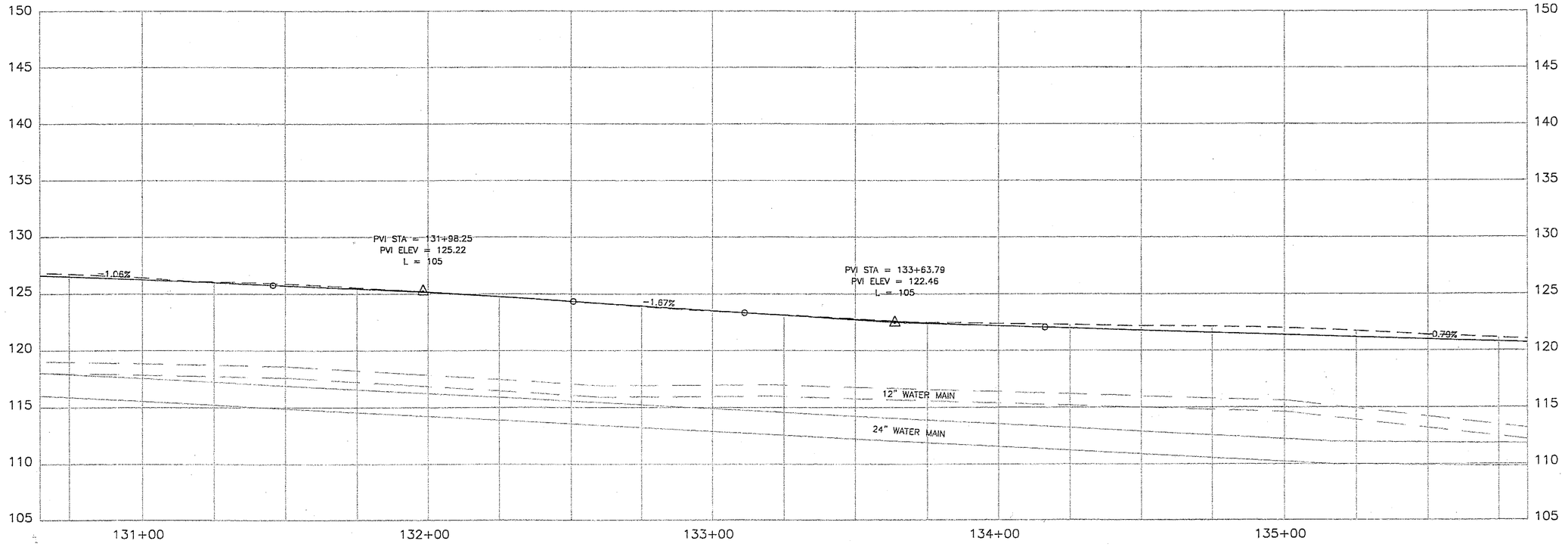
PROJECT DESIGNATION NUMBER

68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F2	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F03.dwg
Thu, 29/Dec/05 08:10AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

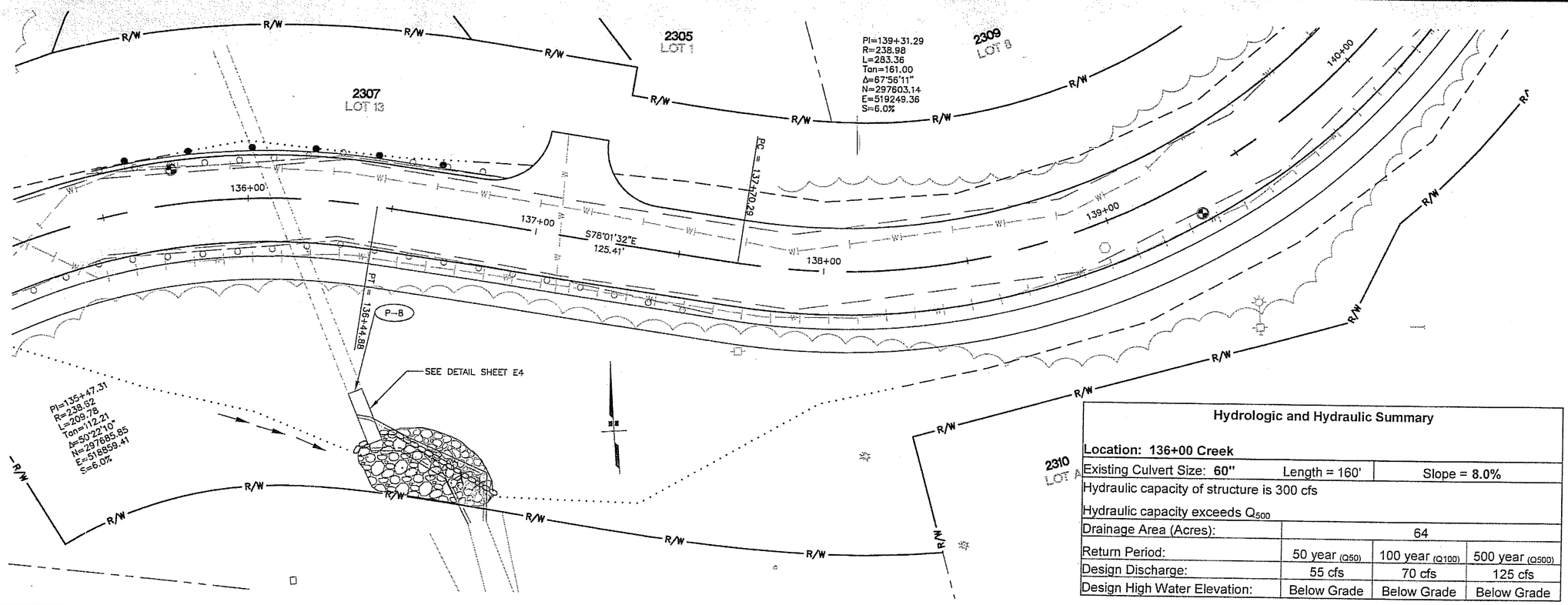
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 131+00 TO STA. 135+50

PROJECT DESIGNATION NUMBER
68023/68926

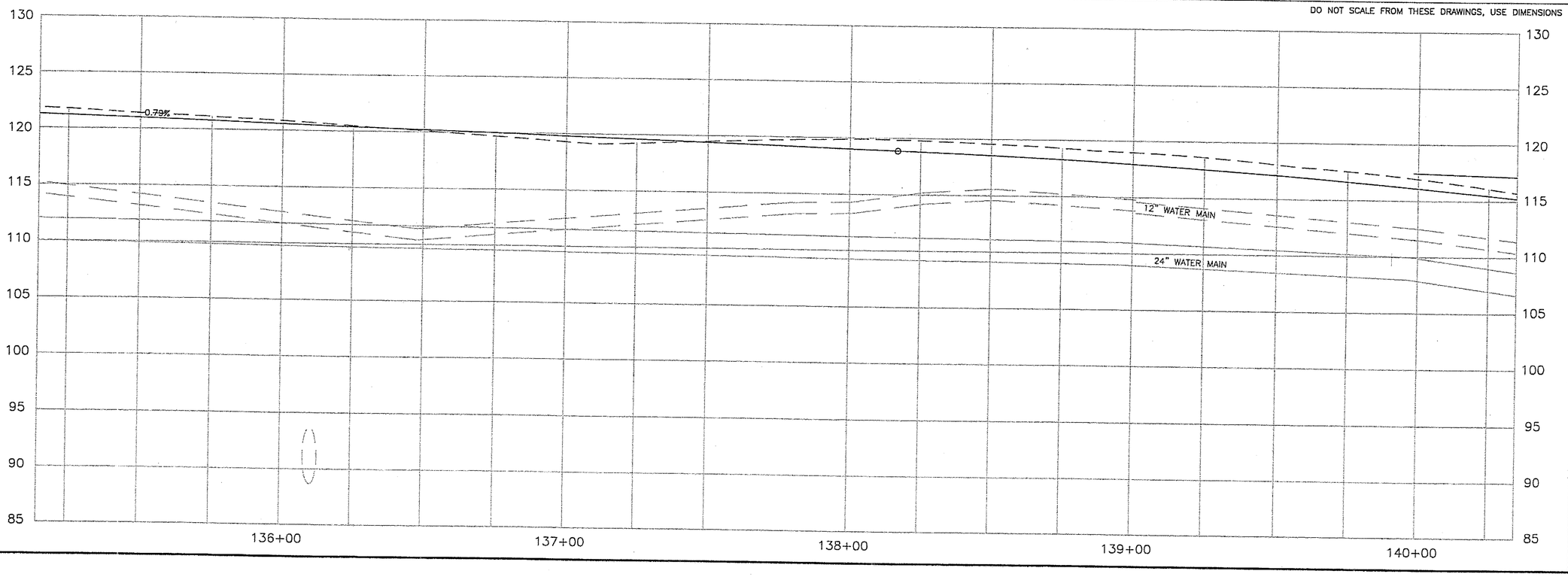
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F3	120



Hydrologic and Hydraulic Summary

Location: 136+00 Creek

Existing Culvert Size: **60"** Length = 160'			Slope = **8.0%**
Hydraulic capacity of structure is 300 cfs			
Hydraulic capacity exceeds Q_{500}			
Drainage Area (Acres):	64		
Return Period:	50 year (Q_{50})	100 year (Q_{100})	500 year (Q_{500})
Design Discharge:	55 cfs	70 cfs	125 cfs
Design High Water Elevation:	Below Grade	Below Grade	Below Grade



PATH:
I:\696201\DWGS\Sheets\F04.dwg
Thu, 29/Dec/05 08:10AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-29-05

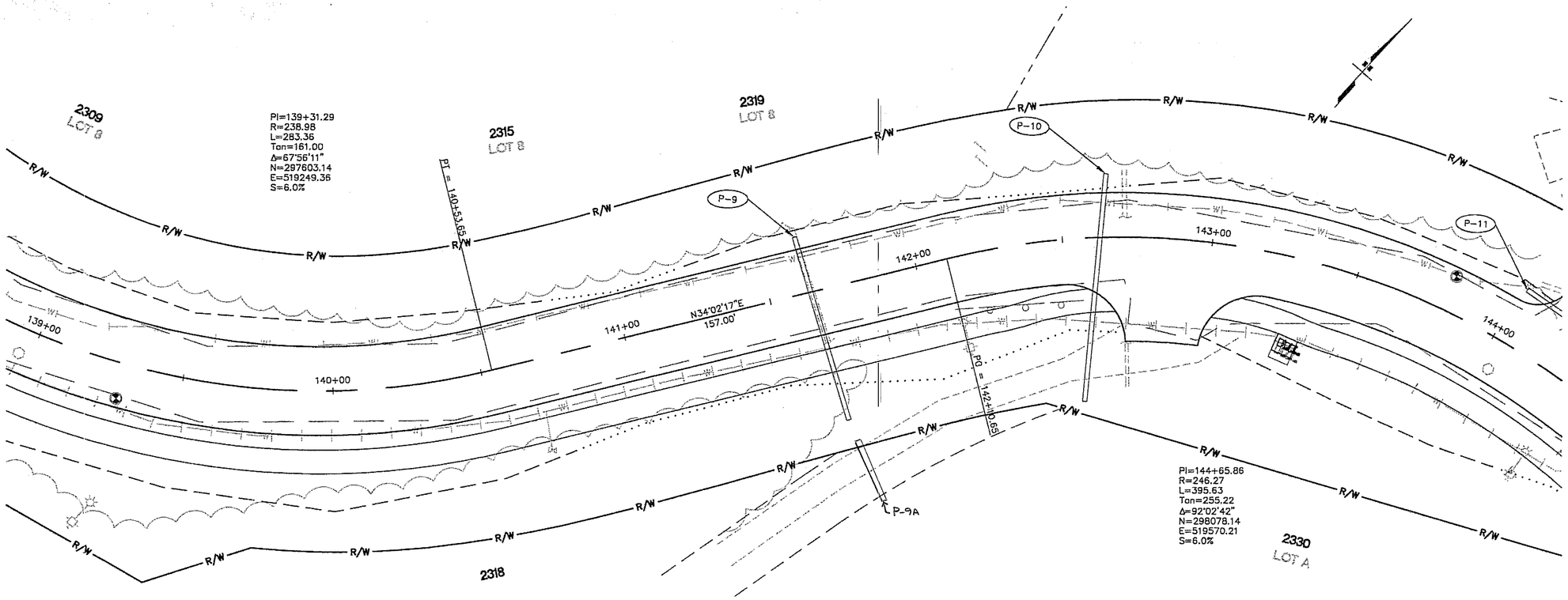
CHECKED BY: NCL

DRAWN BY: WMH

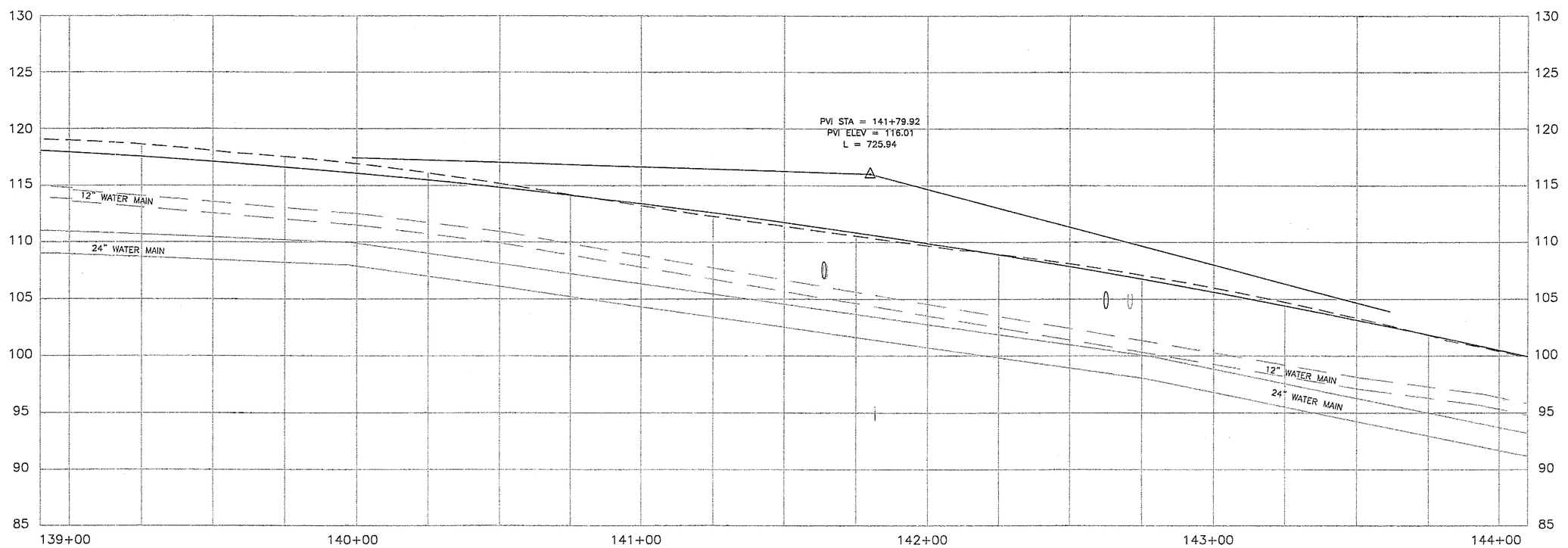
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 135+50 TO STA. 140+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F4	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F05.dwg
Thu, 29/Dec/05 08:11AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

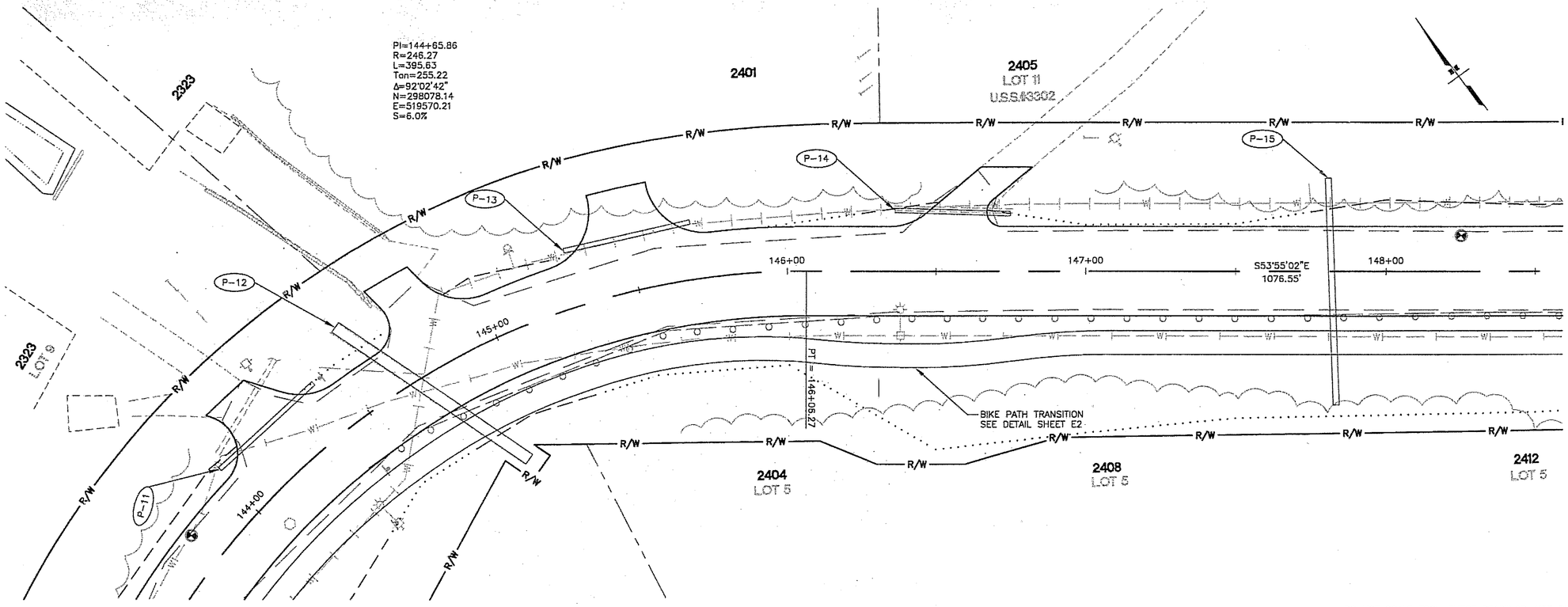
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

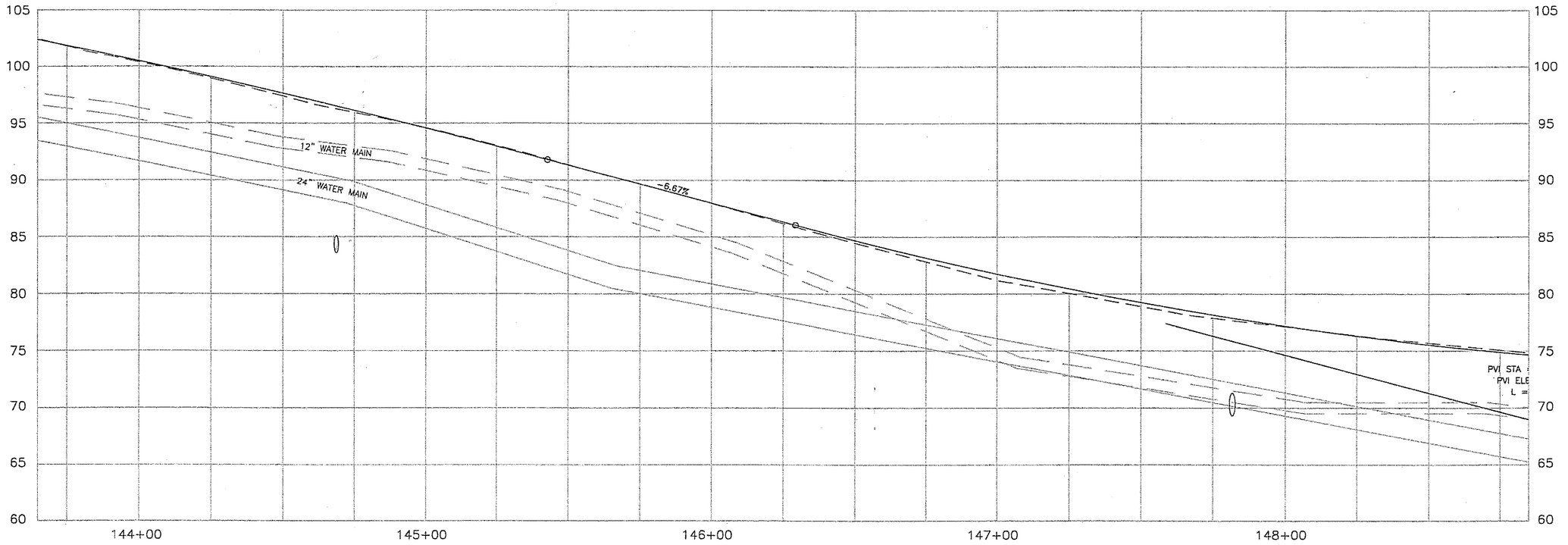
ROADWAY PLAN & PROFILE STA. 140+00 TO STA. 144+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F5	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F06.dwg
Thu, 29/Dec/05 08:11AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8385
REGISTERED PROFESSIONAL ENGINEER
12-28-05

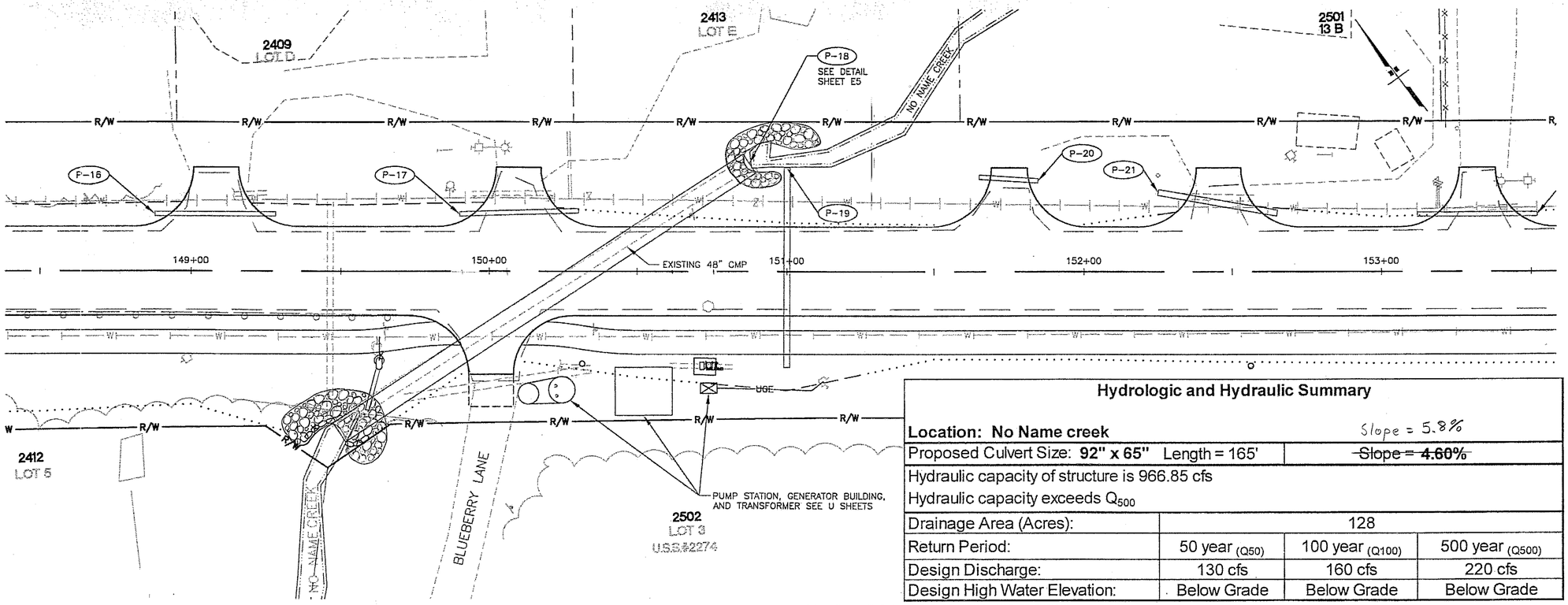
CHECKED BY: NCL

DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 144+00 TO STA. 148+50

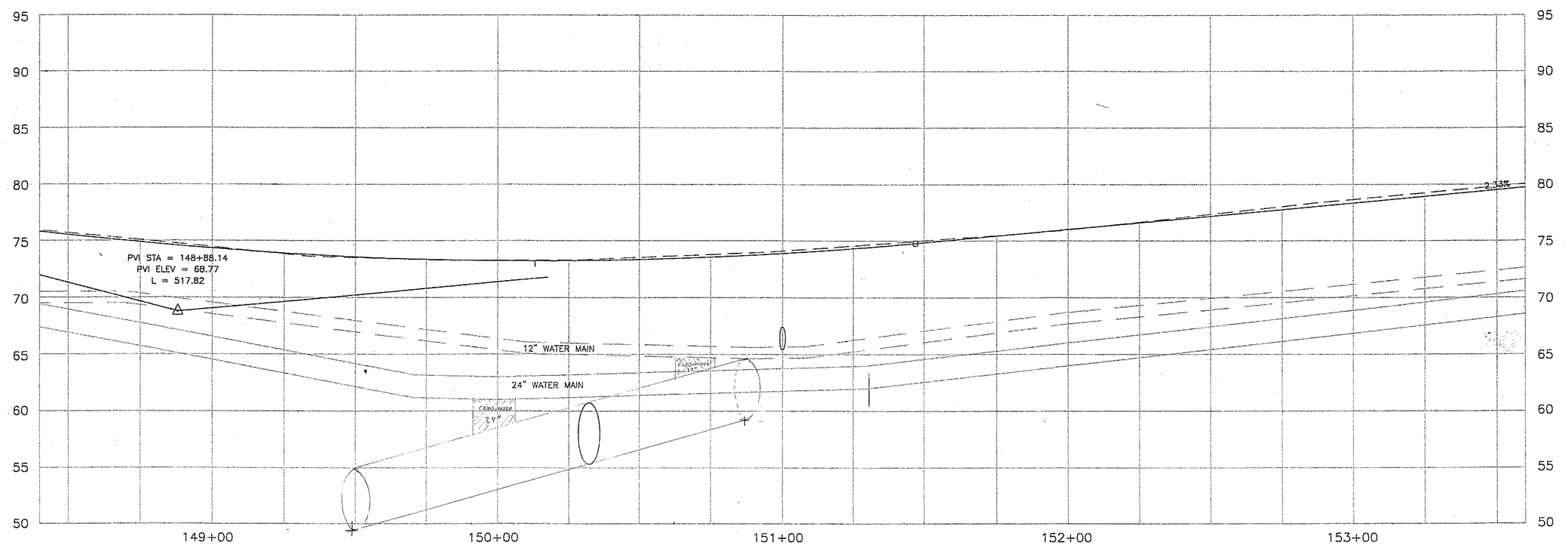
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F6	120



Hydrologic and Hydraulic Summary

Location: No Name creek	Slope = 5.8%		
Proposed Culvert Size: **92" x 65"** Length = 165'	~~Slope = 4.60%~~		
Hydraulic capacity of structure is 966.85 cfs Hydraulic capacity exceeds Q_{500}			
Drainage Area (Acres):	128		
Return Period:	50 year $_{(Q50)}$	100 year $_{(Q100)}$	500 year $_{(Q500)}$
Design Discharge:	130 cfs	160 cfs	220 cfs
Design High Water Elevation:	Below Grade	Below Grade	Below Grade

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F07.dwg
Thu, 29/Dec/05 08:11AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

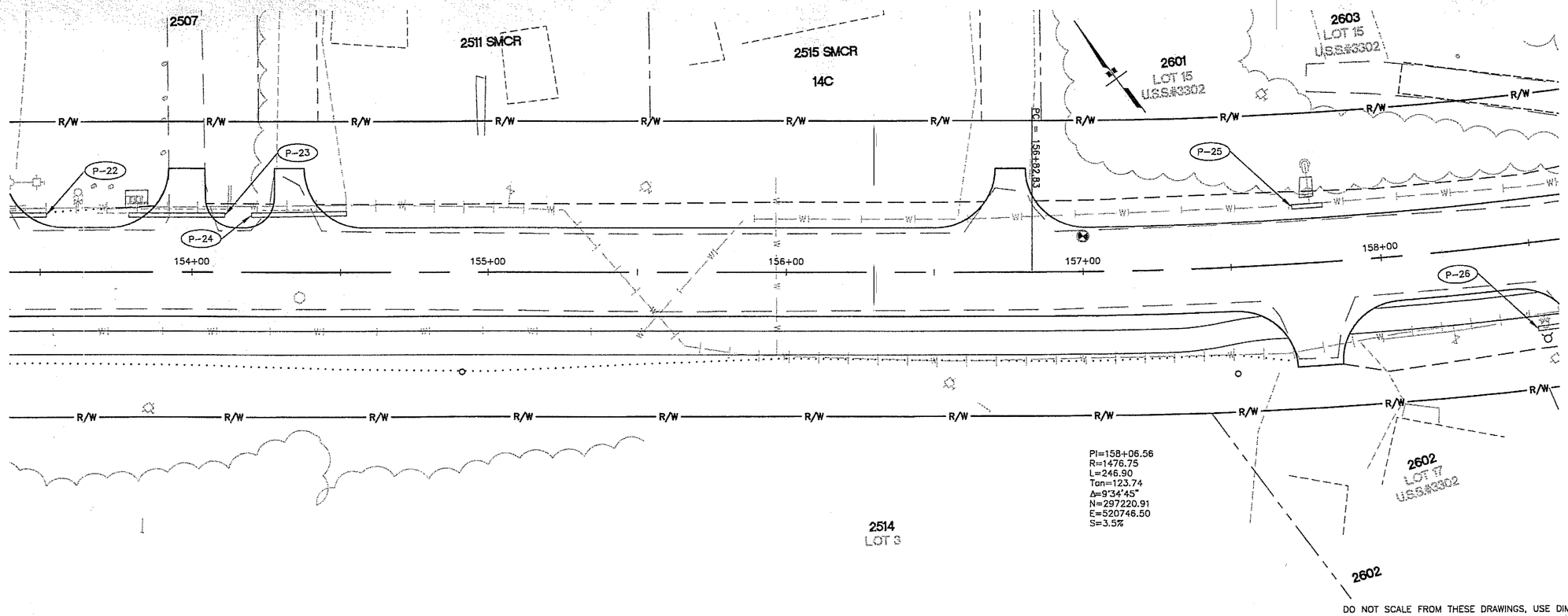
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

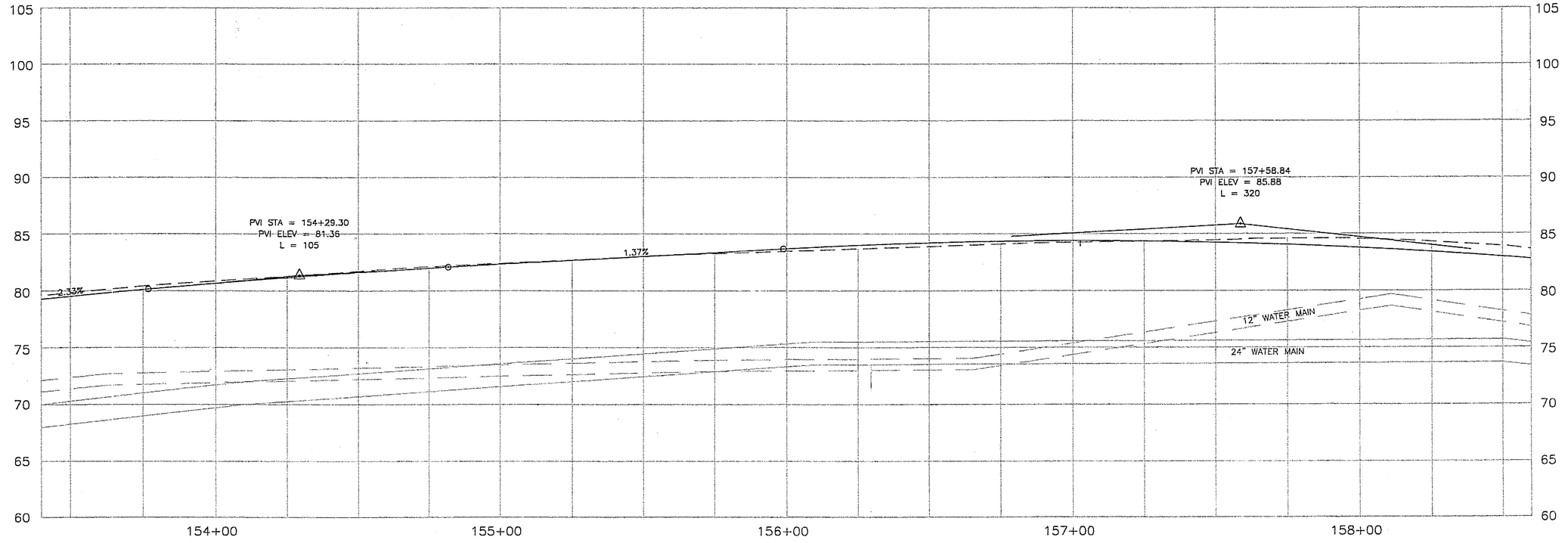
ROADWAY PLAN & PROFILE
STA. 148+50
STA. 153+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F7	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F08.dwg
Thu, 29/Dec/05 08:11AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

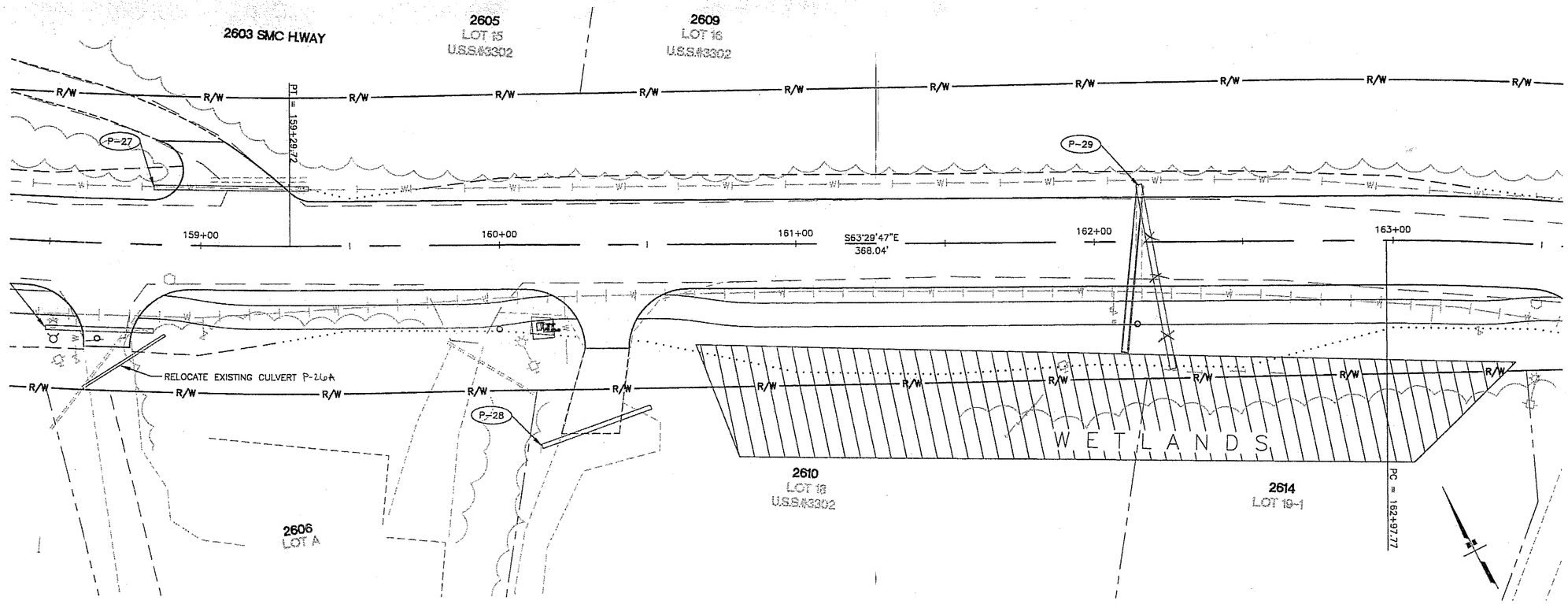
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

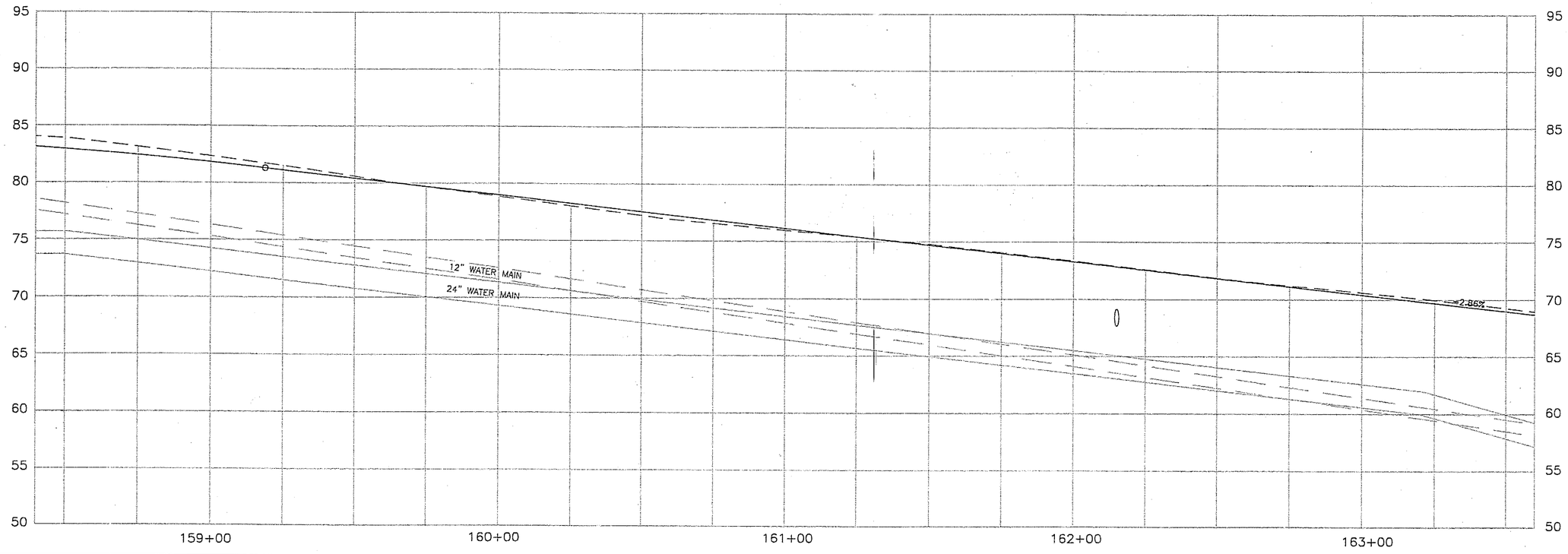
ROADWAY PLAN & PROFILE STA. 153+50 TO STA. 158+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F8	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F09.dwg
Thu, 29/Dec/05 08:12AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

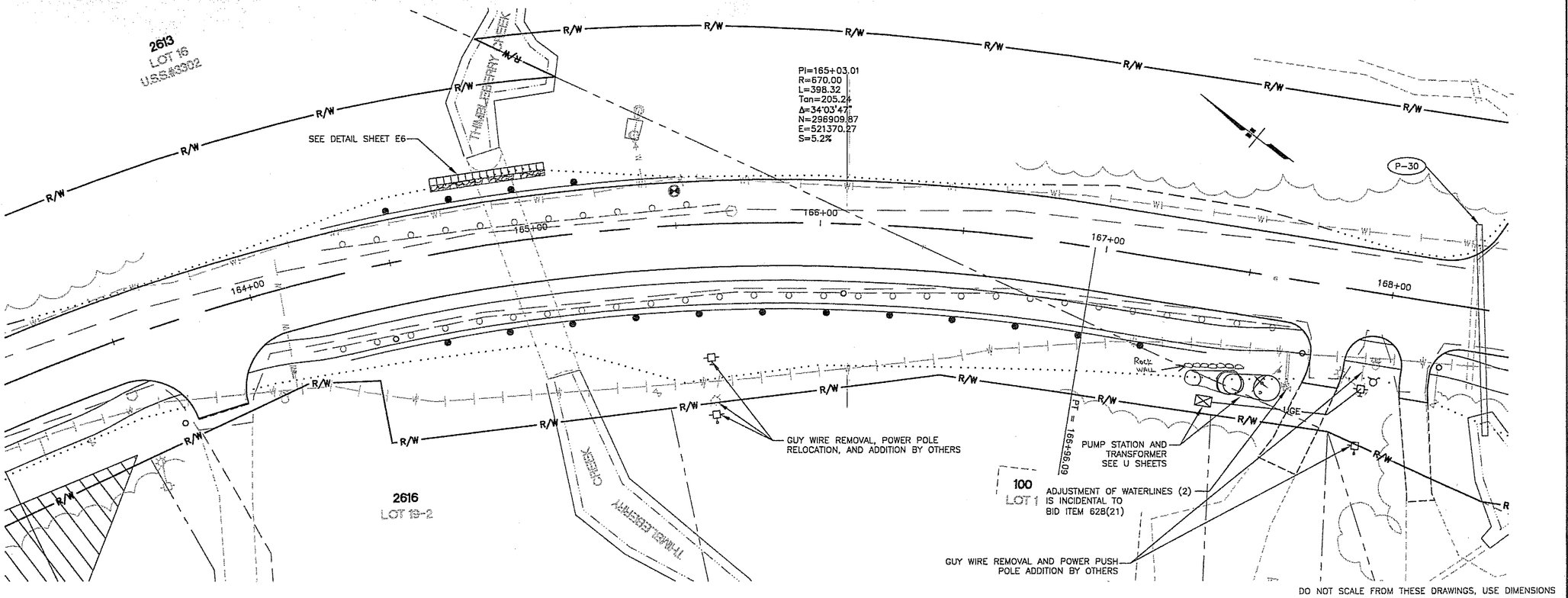
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

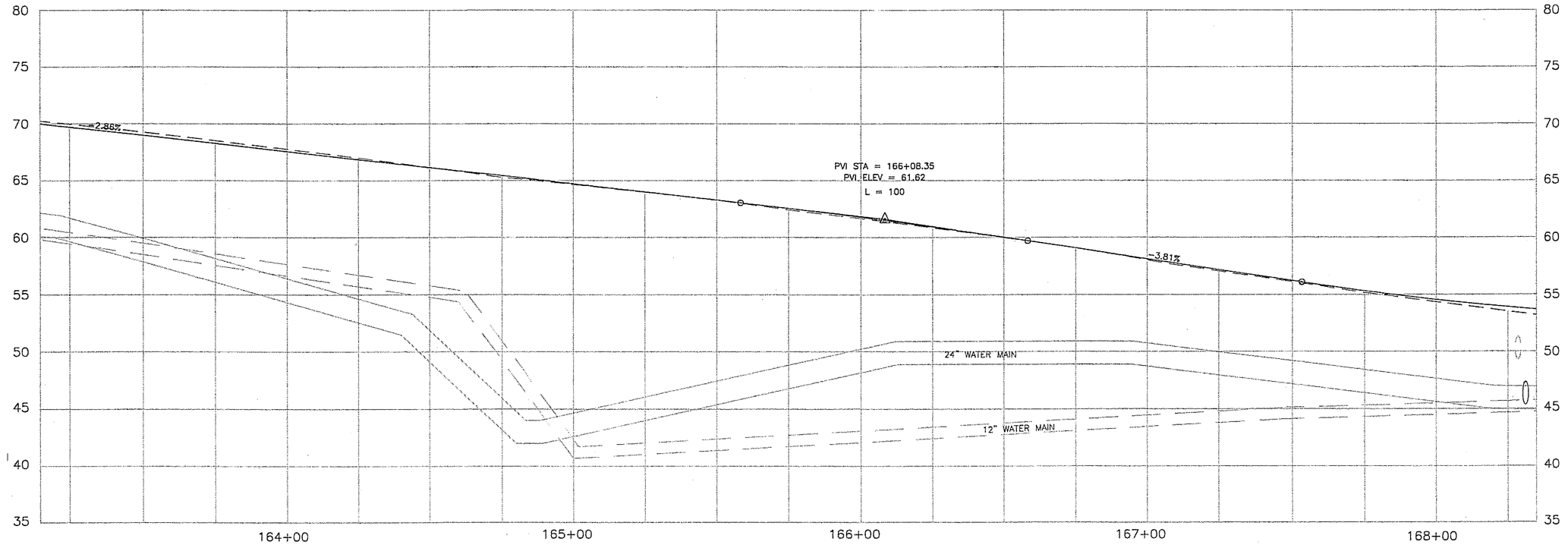
ROADWAY PLAN & PROFILE STA. 158+50 TO STA. 163+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F9	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F10.dwg
Thu, 29/Dec/05 10:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-27-05

CHECKED BY: NCL

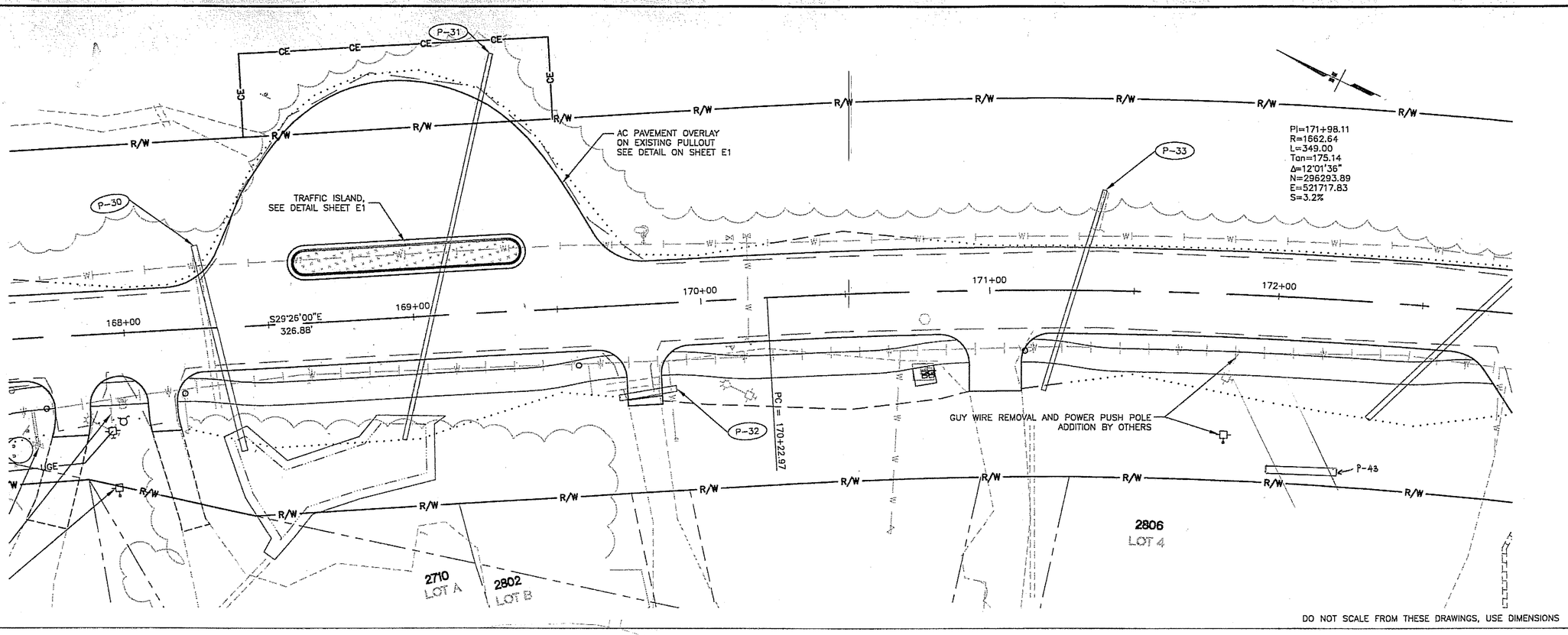
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

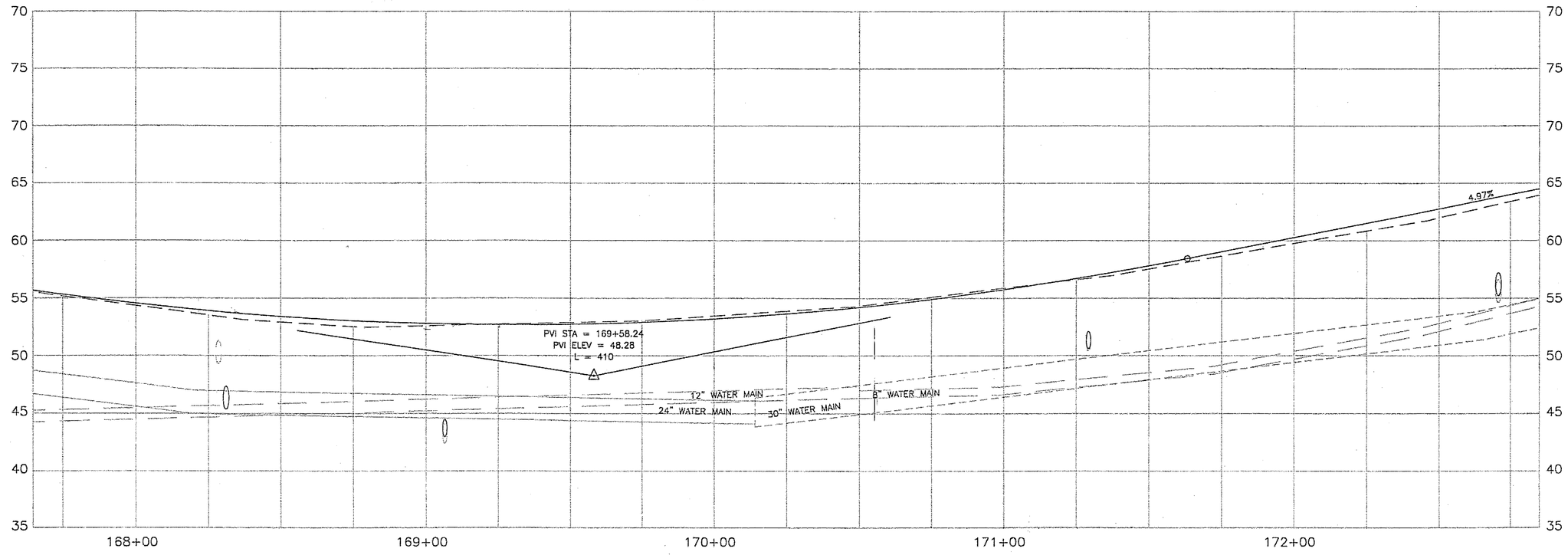
ROADWAY PLAN & PROFILE STA. 163+50 TO STA. 168+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F10	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F11.dwg
Thu, 29/Dec/05 10:29AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

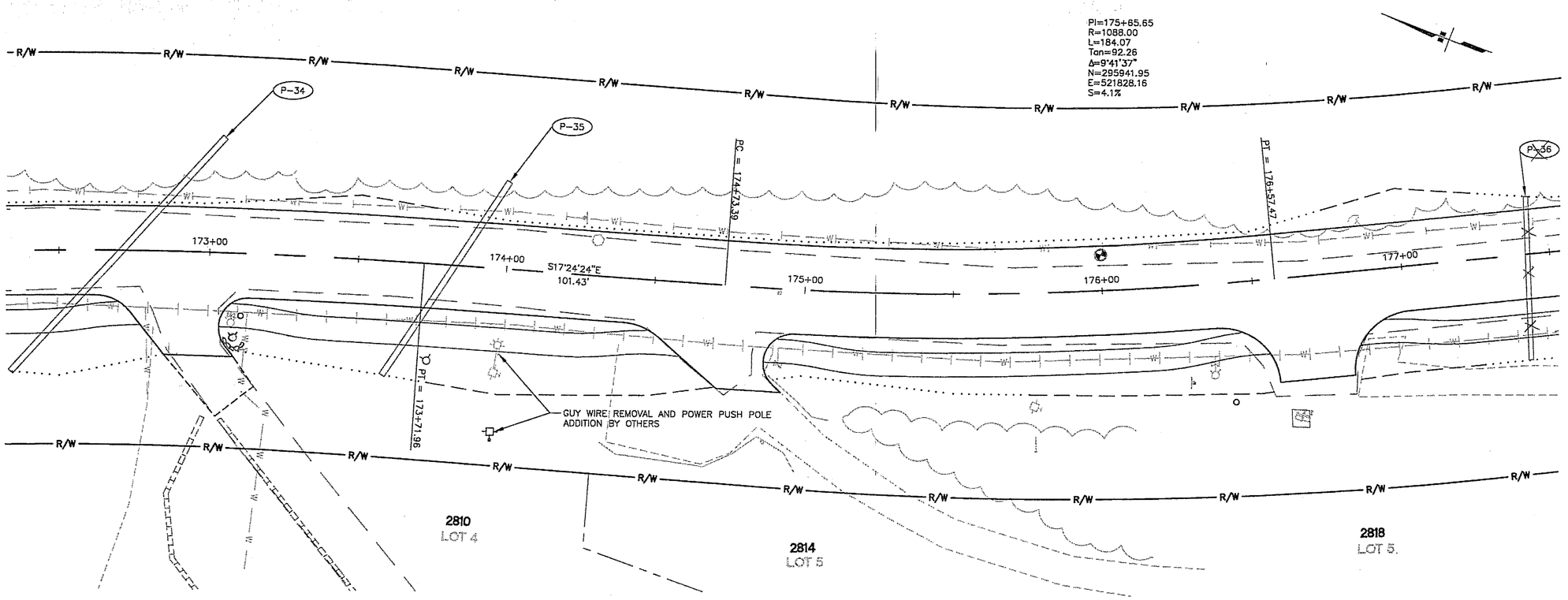
CHECKED BY: NCL

DRAWN BY: WMH

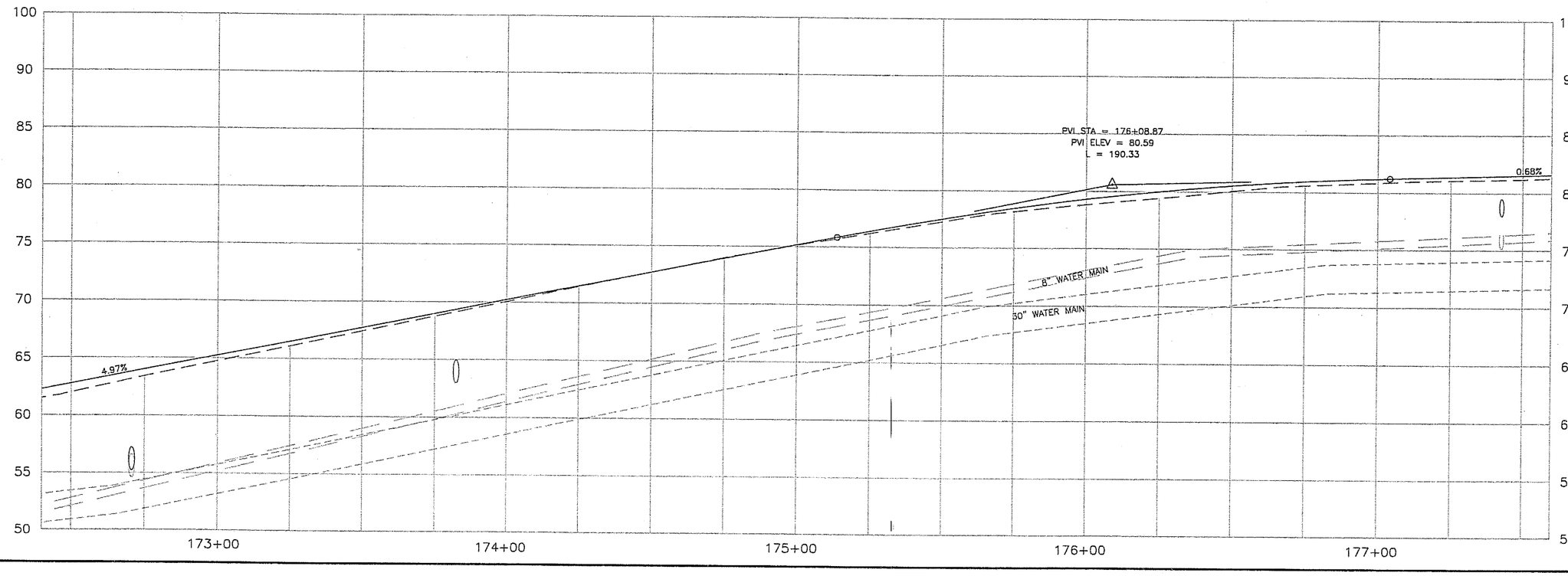
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 168+00 TO STA. 172+50

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F11	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F12.dwg
Thu, 29/Dec/05 10:36AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

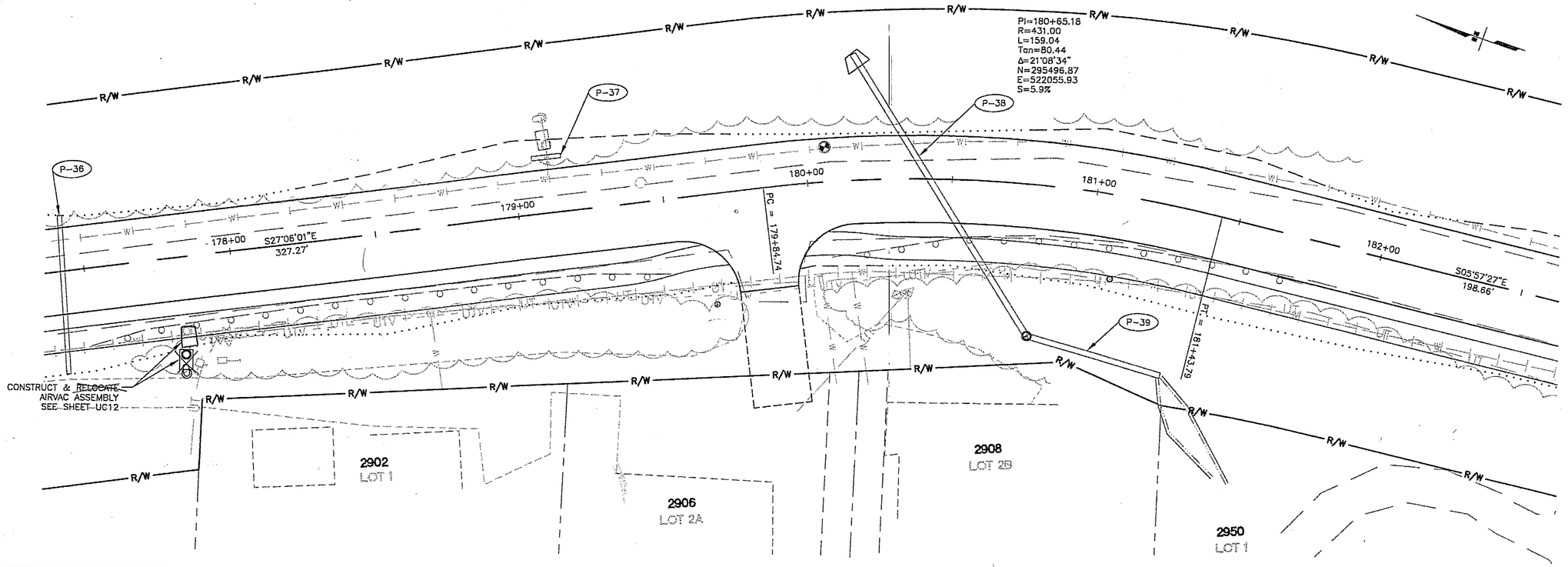
DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

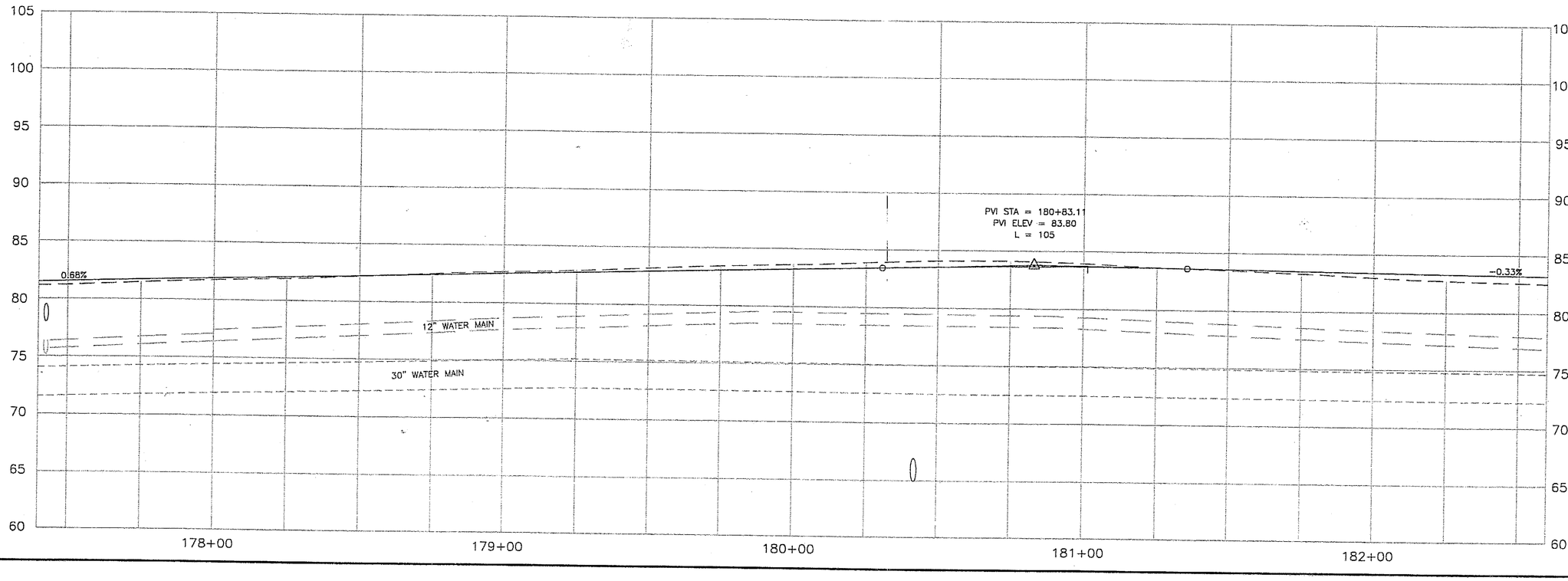
ROADWAY PLAN & PROFILE STA. 172+50 TO STA. 177+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F12	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F13.dwg
Thu, 29/Dec/05 08:13AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

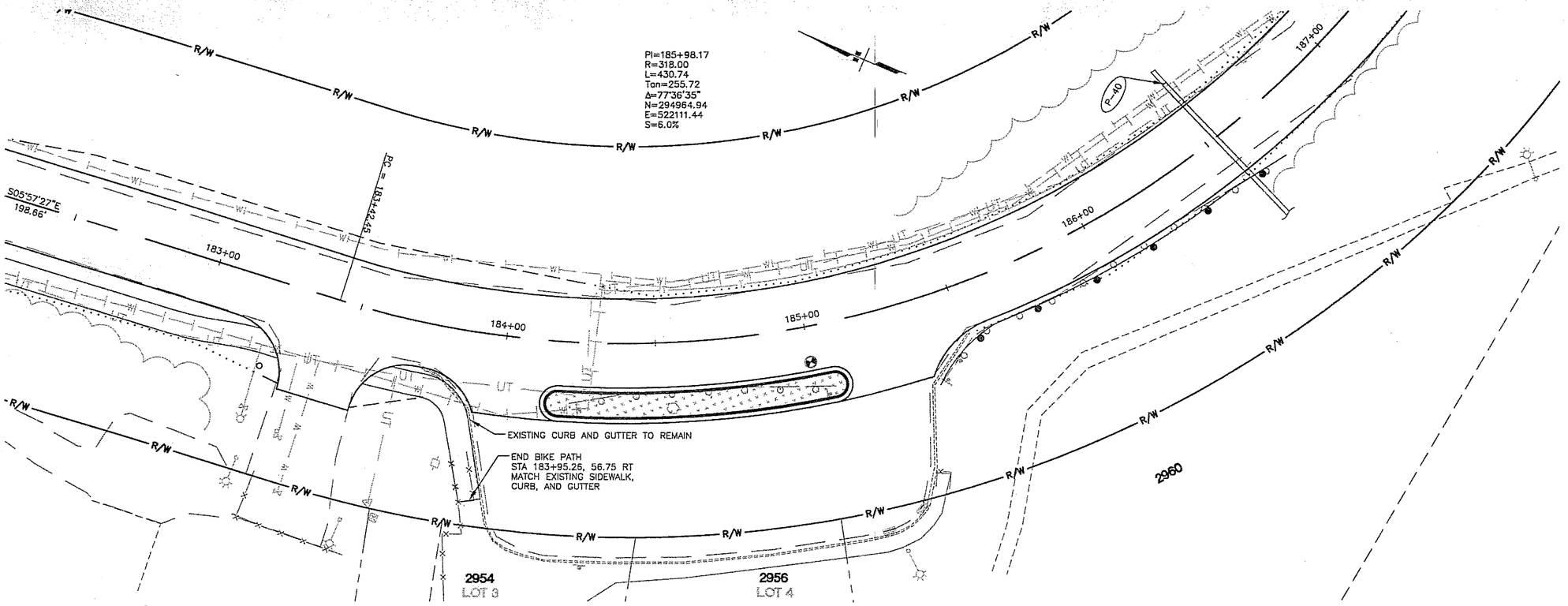
CHECKED BY: NCL

DRAWN BY: WMH

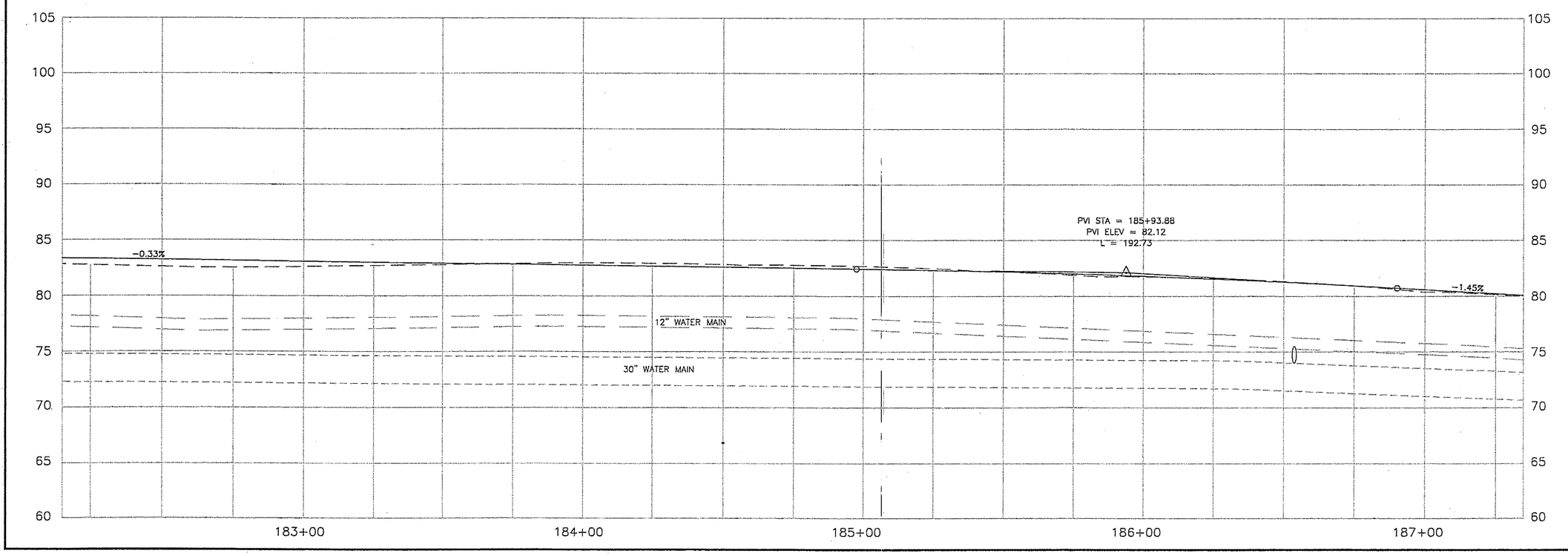
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 177+50 TO STA. 182+50

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F13	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F14.dwg
Thu, 29/Dec/05 08:13AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

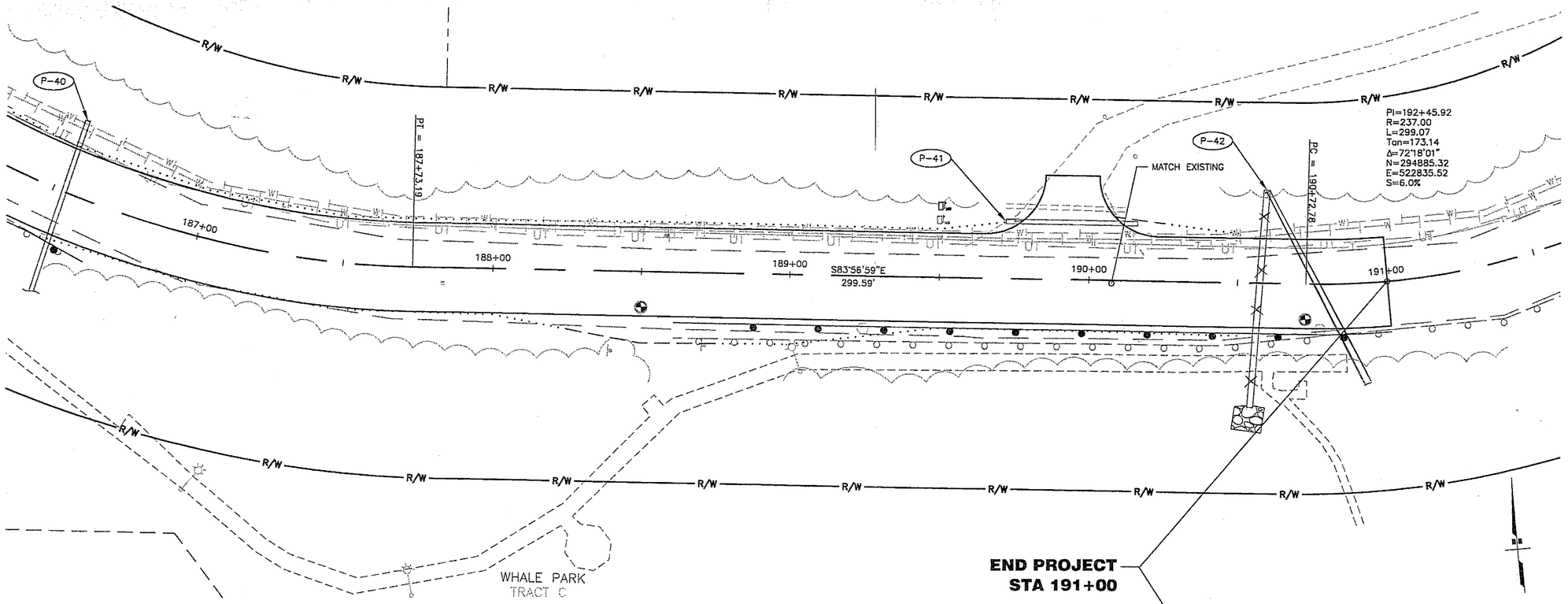
ROADWAY PLAN & PROFILE STA. 182+50 TO STA. 187+00

PROJECT DESIGNATION NUMBER

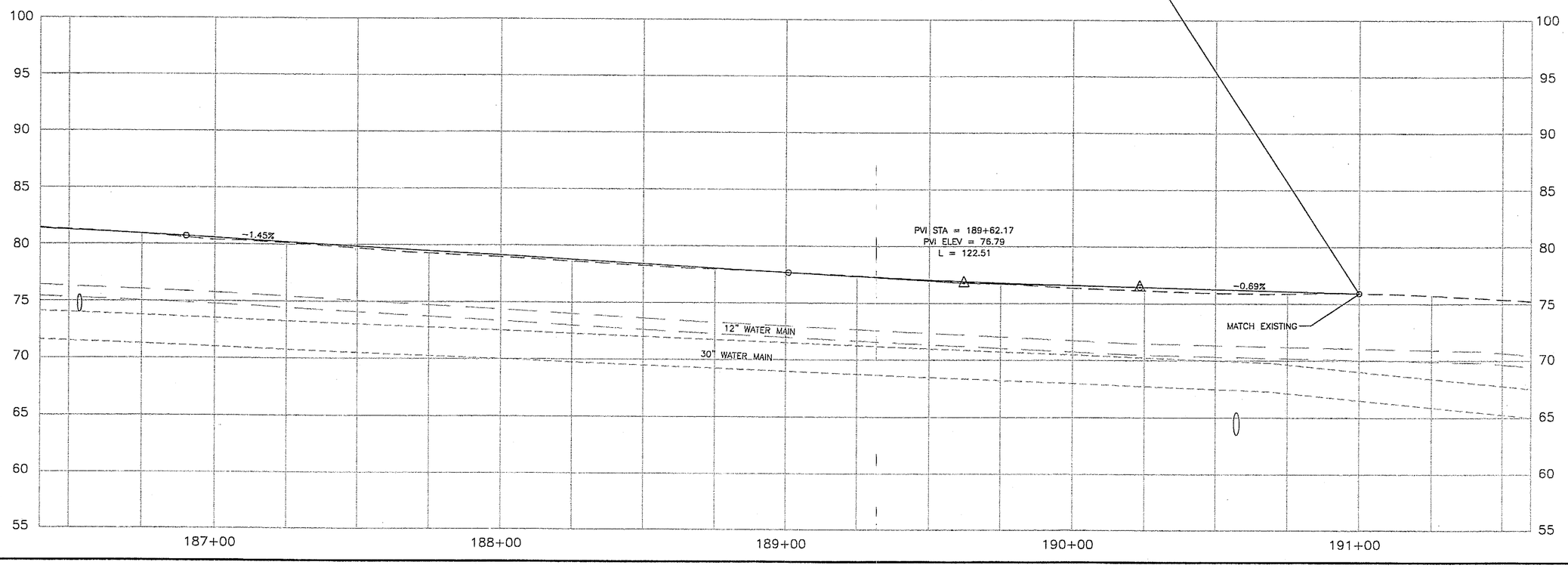
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
F14	120



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\F15.dwg
Thu, 29/Dec/05 08:13AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

ROADWAY PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: WMH

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WMH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

ROADWAY PLAN & PROFILE STA. 187+00 TO EOP

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
F15	120

Traffic Control Notes:

1. A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES, THROUGH ALL WORK AREAS.
2. TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS AND DURING NON-WORK HOURS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
4. WORK ZONE DOUBLE TRAFFIC FINES SIGNS SHALL BE USED AS DIRECTED BY THE ENGINEER AND PER STANDARD DRAWING C-04.12.
5. WARNING LIGHTS SHALL BE USED ON ALL CHANNELIZING DEVICES PLACED ALONG OR AROUND ROADWAY HAZARDS.
6. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE PORTIONS OF DETAILS ON THESE SHEETS.
7. THE LENGTH OF A TWO-WAY ONE-WAY LANE WORK AREA MAY BE REDUCED TO AVOID EXCESSIVE TRAFFIC DELAYS AS DIRECTED BY THE ENGINEER
8. PRIOR TO BLASTING, THE BLASTER IN CHARGE SHALL DETERMINE WHETHER ROAD USERS IN THE BLASTING ZONE WILL BE ENDANGERED BY THE BLASTING OPERATION. IF THERE IS DANGER, ROAD USERS SHALL NOT BE PERMITTED TO PASS THROUGH THE BLASTING ZONE DURING BLASTING OPERATIONS AND FLAGGERS WITH THE APPROPRIATE SIGNAGE WILL BE REQUIRED.
9. SEE SHEET N22 FOR INDIAN RIVER BRIDGE TRAFFIC CONTROL.

Legend

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

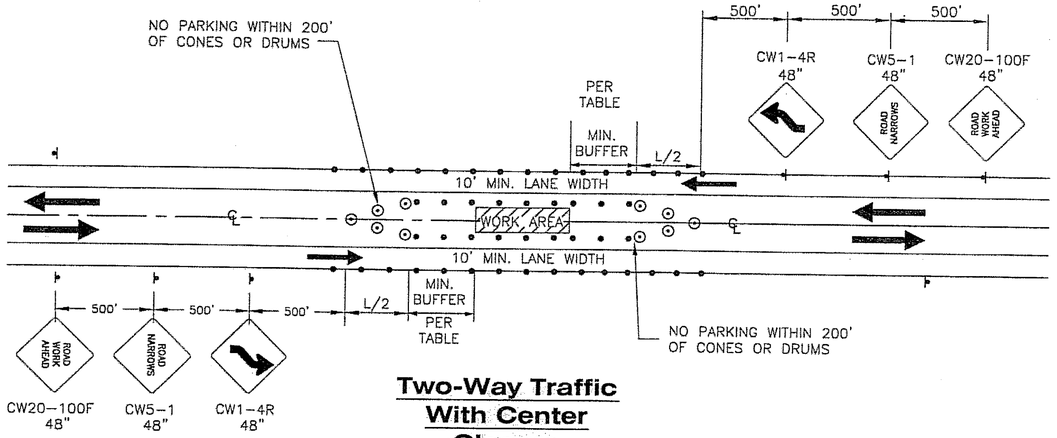
FORMULAS FOR L (TAPER LENGTH)

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

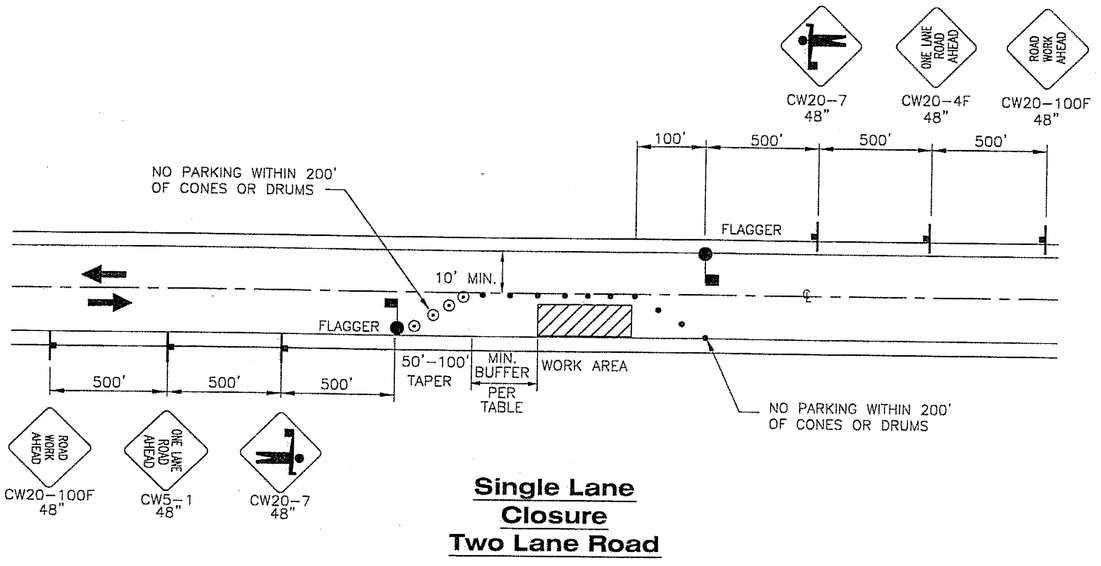
45 MPH OR GREATER $L = WxS$

WHERE W= WIDTH OF OFFSET
S= POSTED SPEED LIMIT

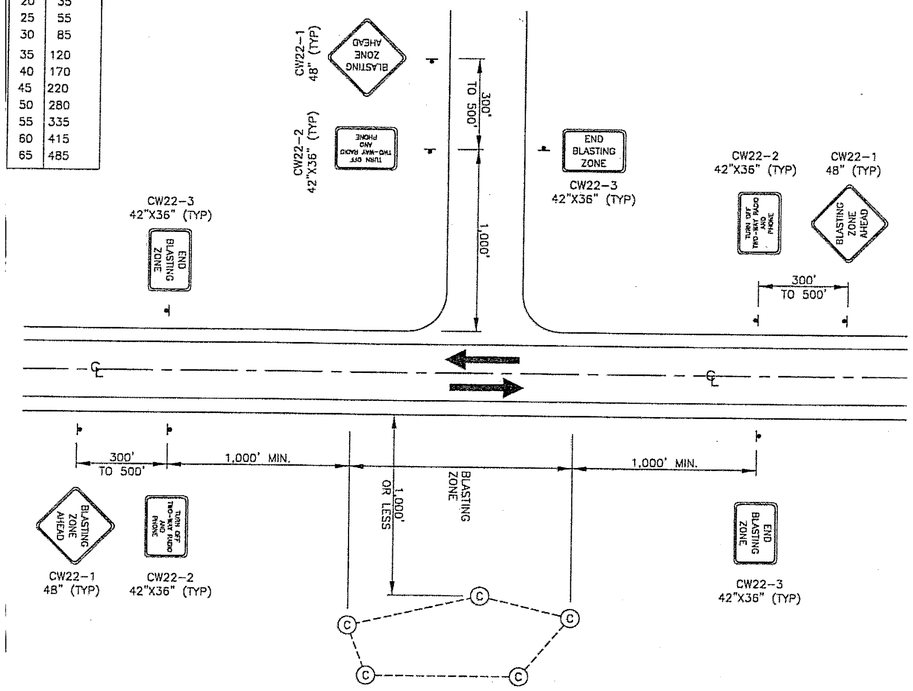
MIN. BUFFER	
S	LENGTH
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485



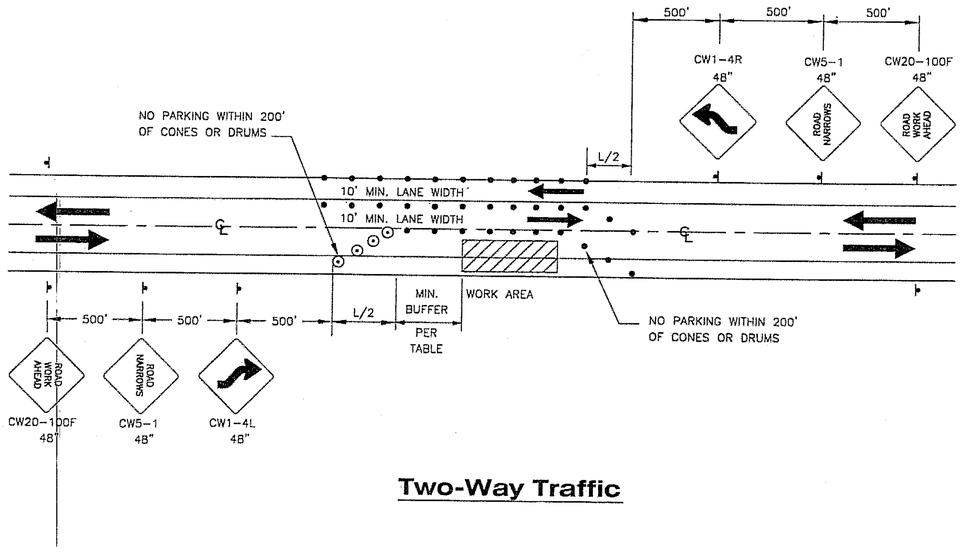
Two-Way Traffic With Center Closure



Single Lane Closure Two Lane Road



BLASTING ZONE



Two-Way Traffic

PATH:
I:\696201\DWGS\Sheets\K01.dwg
Thu, 29/Dec/05 08:15AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TRAFFIC CONTROL PLAN

PREPARED BY: USKH INC.
DESIGNED BY: SAM

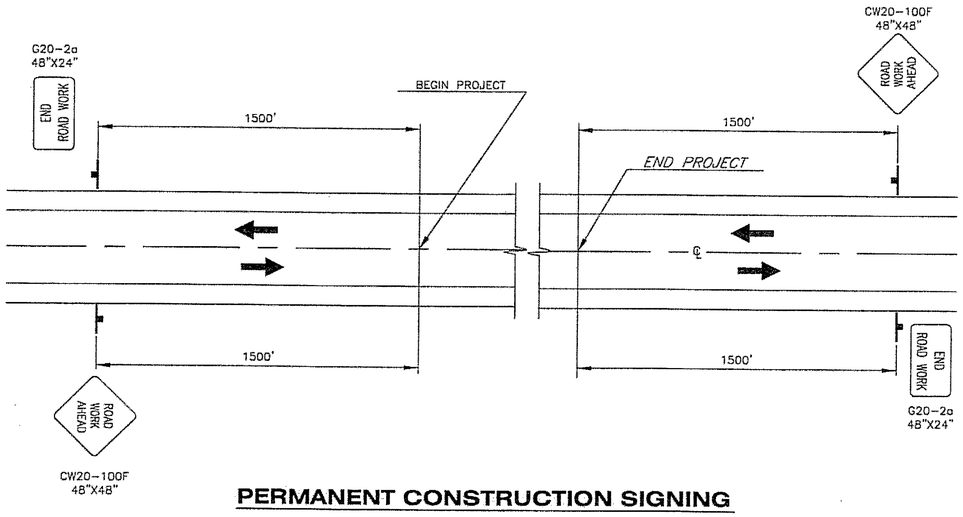
STATE OF ALASKA
49TH
Nathan C. Leon
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

TRAFFIC CONTROL PLAN

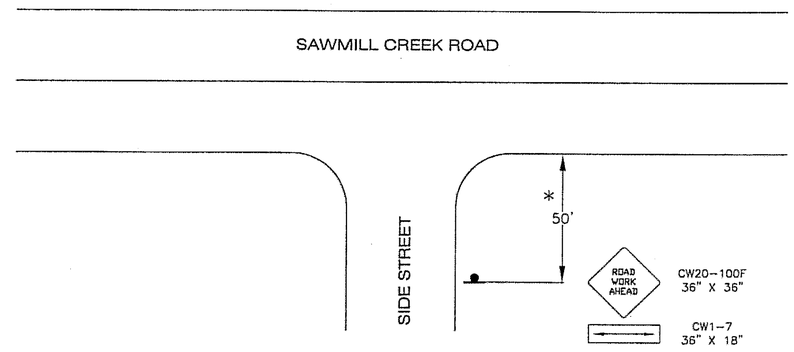
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
K1	120



PERMANENT CONSTRUCTION SIGNING

USE AT:

1. BOP / SHOTGUN ALLEY
2. EOP / PAST WHALE PARK



Permanent Construction Signing
Side Streets

USE AT:

1. BLUEBERRY LANE
2. WHALE PARK
3. SHOTGUN ALLEY
4. INDIAN RIVER ROAD

* OR AS DIRECTED BY THE ENGINEER

PATH:
I:\696201\DWGS\Sheets\K02.dwg
Thu, 29/Dec/05 08:15AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TRAFFIC CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan G. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: KM

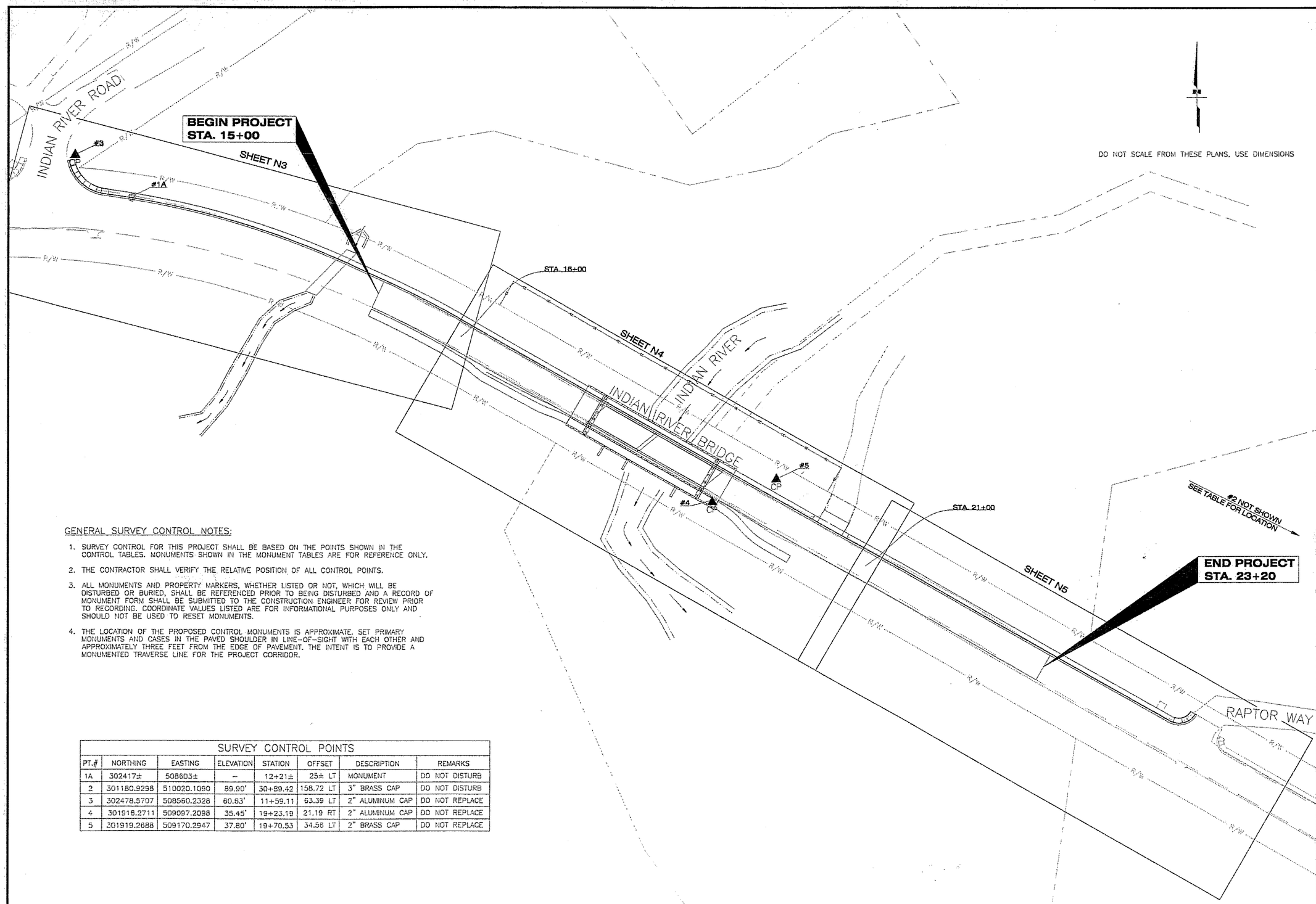
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

TRAFFIC CONTROL PLAN

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
K2	120



DO NOT SCALE FROM THESE PLANS. USE DIMENSIONS

GENERAL SURVEY CONTROL NOTES:

1. SURVEY CONTROL FOR THIS PROJECT SHALL BE BASED ON THE POINTS SHOWN IN THE CONTROL TABLES. MONUMENTS SHOWN IN THE MONUMENT TABLES ARE FOR REFERENCE ONLY.
2. THE CONTRACTOR SHALL VERIFY THE RELATIVE POSITION OF ALL CONTROL POINTS.
3. ALL MONUMENTS AND PROPERTY MARKERS, WHETHER LISTED OR NOT, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED PRIOR TO BEING DISTURBED AND A RECORD OF MONUMENT FORM SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING. COORDINATE VALUES LISTED ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED TO RESET MONUMENTS.
4. THE LOCATION OF THE PROPOSED CONTROL MONUMENTS IS APPROXIMATE. SET PRIMARY MONUMENTS AND CASES IN THE PAVED SHOULDER IN LINE-OF-SIGHT WITH EACH OTHER AND APPROXIMATELY THREE FEET FROM THE EDGE OF PAVEMENT. THE INTENT IS TO PROVIDE A MONUMENTED TRAVERSE LINE FOR THE PROJECT CORRIDOR.

SURVEY CONTROL POINTS

PT.#	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION	REMARKS
1A	302417±	508603±	–	12+21±	25± LT	MONUMENT	DO NOT DISTURB
2	301180.9298	510020.1090	89.90'	30+89.42	158.72 LT	3" BRASS CAP	DO NOT DISTURB
3	302478.5707	508560.2328	60.63'	11+59.11	63.39 LT	2" ALUMINUM CAP	DO NOT REPLACE
4	301916.2711	509097.2098	35.45'	19+23.19	21.19 RT	2" ALUMINUM CAP	DO NOT REPLACE
5	301919.2688	509170.2947	37.80'	19+70.53	34.56 LT	2" BRASS CAP	DO NOT REPLACE

PATH:

Wed, 28/Dec/05 06:10PM mhetlet
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
SHEET LAYOUT & SURVEY CONTROL

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49th
Marshall L. Hallet Jr.
LS-9108
12-28-05
REGISTERED PROFESSIONAL LAND SURVEYOR

CHECKED BY: NCL/MLH

DRAWN BY: WJP

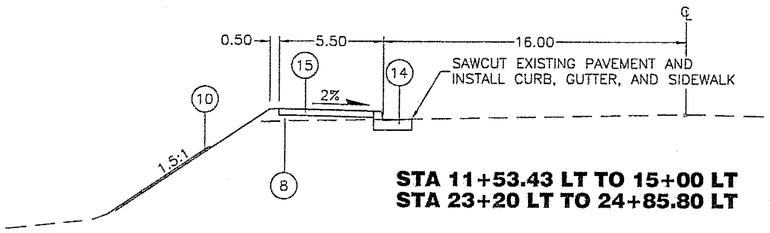
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE
SHEET LAYOUT & SURVEY CONTROL

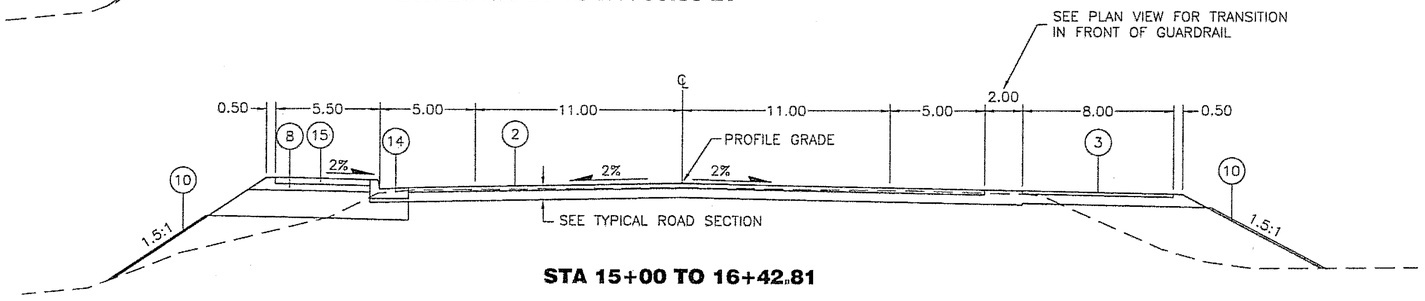
PROJECT DESIGNATION NUMBER

68023/68926

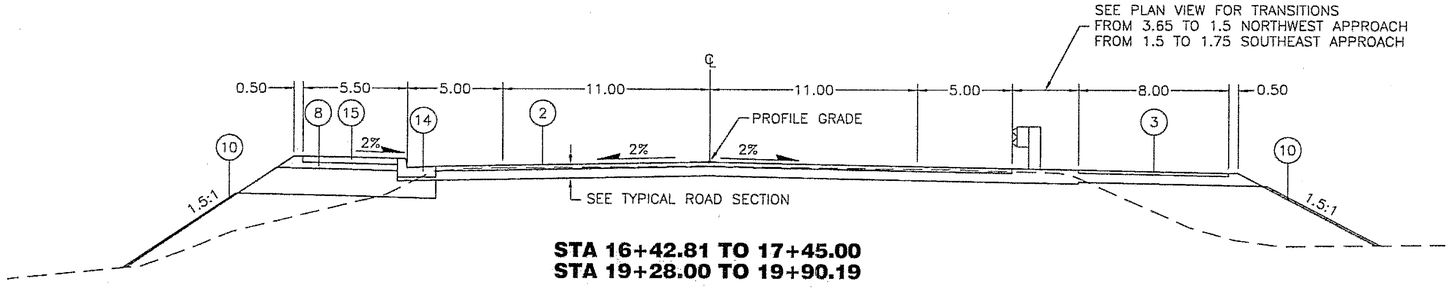
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N1	120



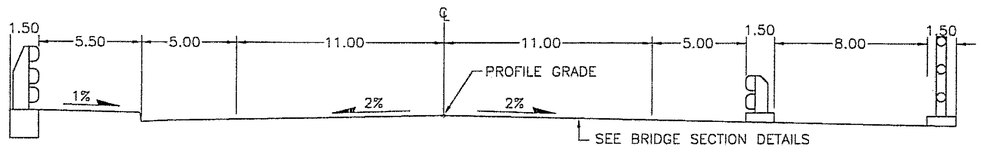
STA 11+53.43 LT TO 15+00 LT
STA 23+20 LT TO 24+85.80 LT



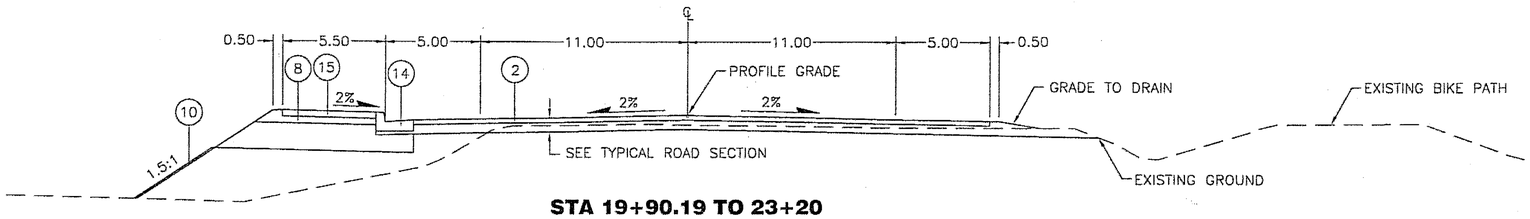
STA 15+00 TO 16+42.81



STA 16+42.81 TO 17+45.00
STA 19+28.00 TO 19+90.19



STA 17+45.00 TO 19+28.00



STA 19+90.19 TO 23+20

LEGEND

1. EXISTING GROUND
2. 2" AC PAVEMENT, TYPE II, CLASS B
3. 1 1/2" AC PAVEMENT, TYPE II, CLASS B
4. 3" ATB
5. TACK COAT
6. 6" AGGREGATE BASE COURSE, GRADING D-1
7. SELECTED MATERIAL, TYPE A OR D
8. 4" AGGREGATE BASE COURSE, GRADING D-1
9. SELECTED MATERIAL, TYPE C
10. 4" TOPSOIL, SEEDING & MATTING
11. LIMITS OF EXCAVATION, REMOVE SURFACE ORGANICS
12. LIMITS OF EXCAVATION, REMOVE EXISTING PAVEMENT
13. ADDITIONAL SUB-EXCAVATION AS DIRECTED
14. CURB & GUTTER, STANDARD
15. 4" CONCRETE SIDEWALK

PATH:
I:\696201\INDIAN RIVER BRIDGE\N02.dwg
Thu, 29/Dec/05 08:23AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
TYPICAL ROAD SECTIONS

PREPARED BY: USKH INC.
DESIGNED BY: KM

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8388
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL
DRAWN BY: WJP

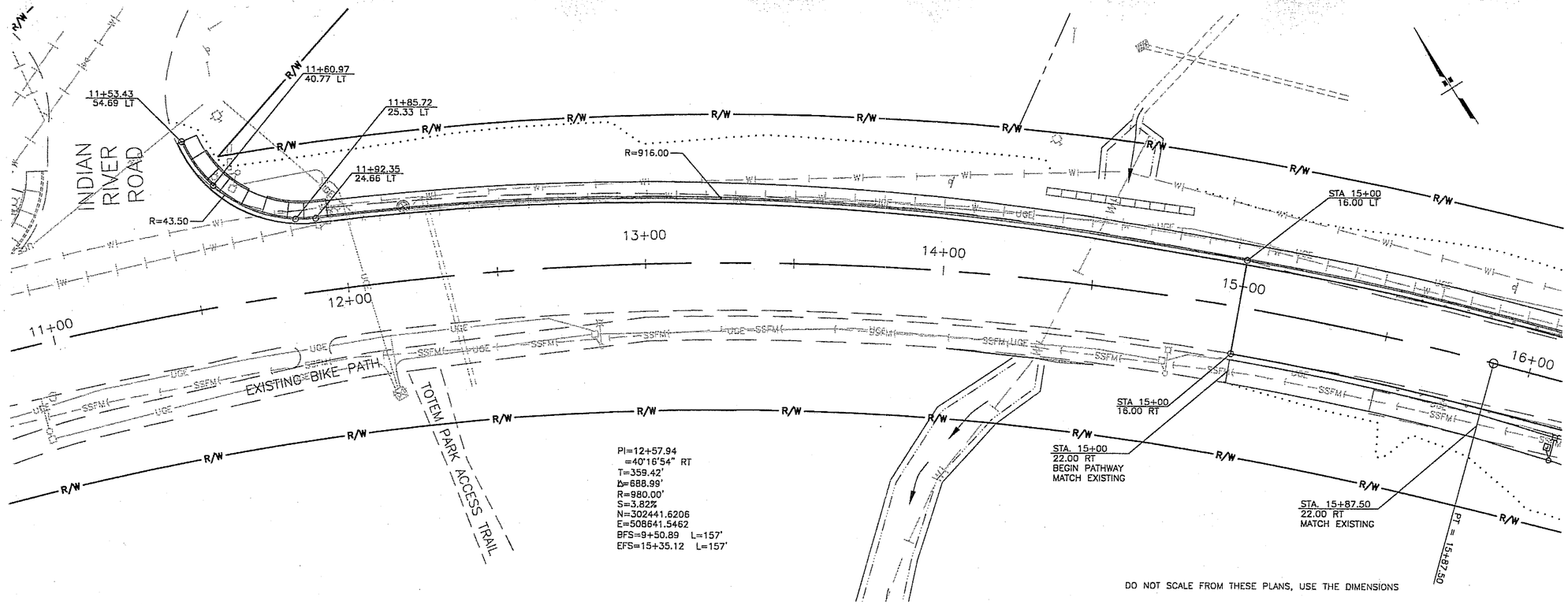
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

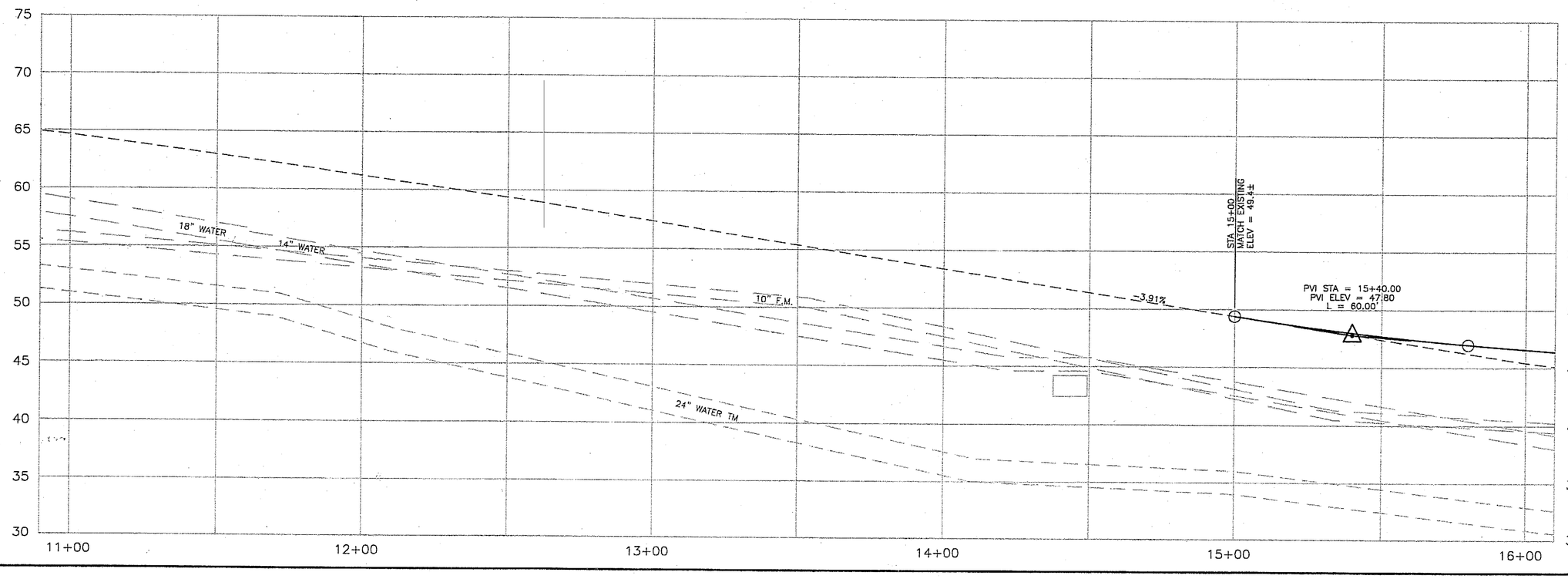
INDIAN RIVER BRIDGE TYPICAL ROAD SECTIONS

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
N2	120





PATH:
I:\696201\INDIAN RIVER BRIDGE\N03.dwg
Thu, 29/Dec/05 08:24AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan S. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

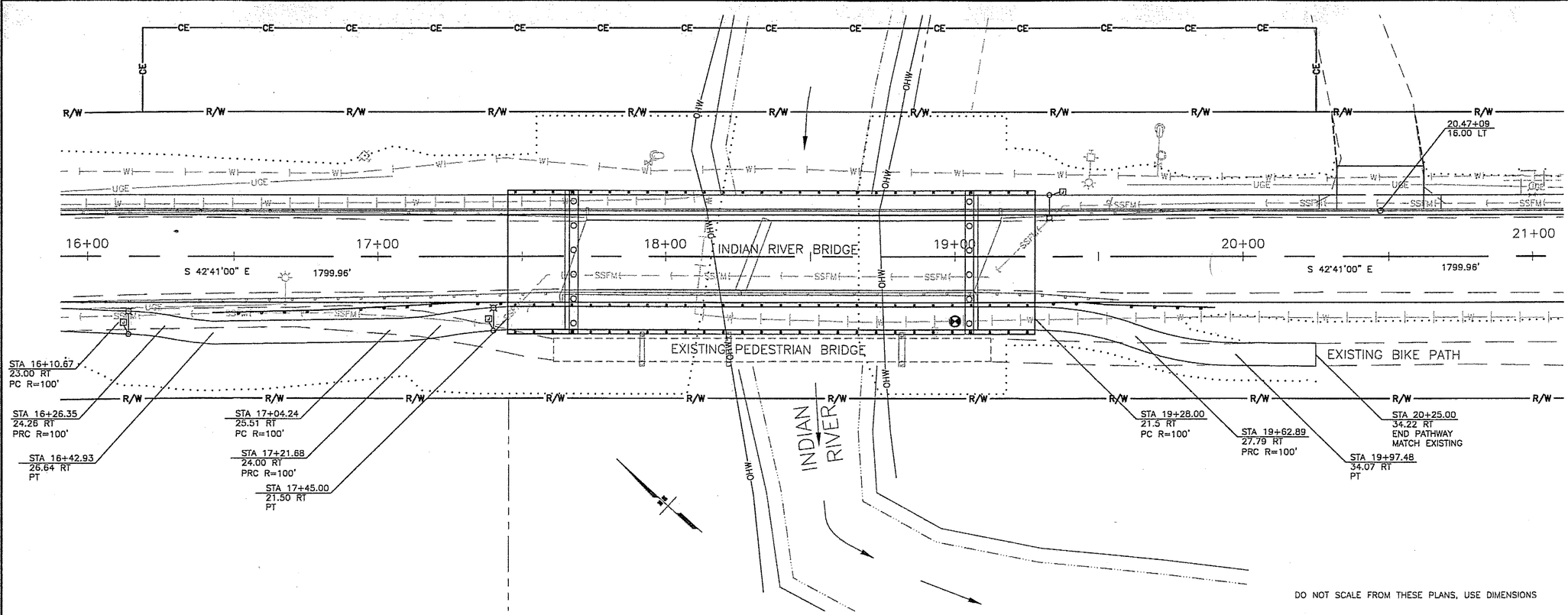
CHECKED BY: NCL

DRAWN BY: WJP

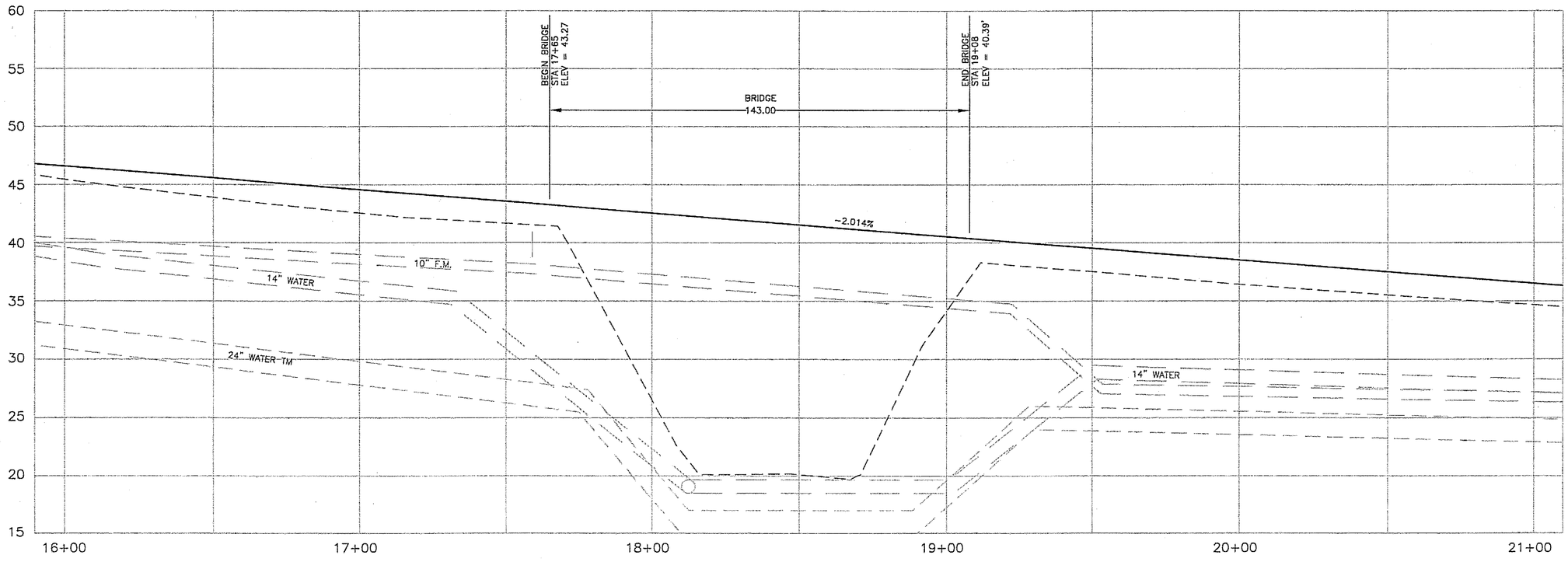
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE
PLAN & PROFILE
STA. 11+00 TO STA. 16+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N3	120



DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS



PATH:
I:\696201\INDIAN RIVER BRIDGE\N04.dwg
Thu, 29/Dec/05 08:24AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

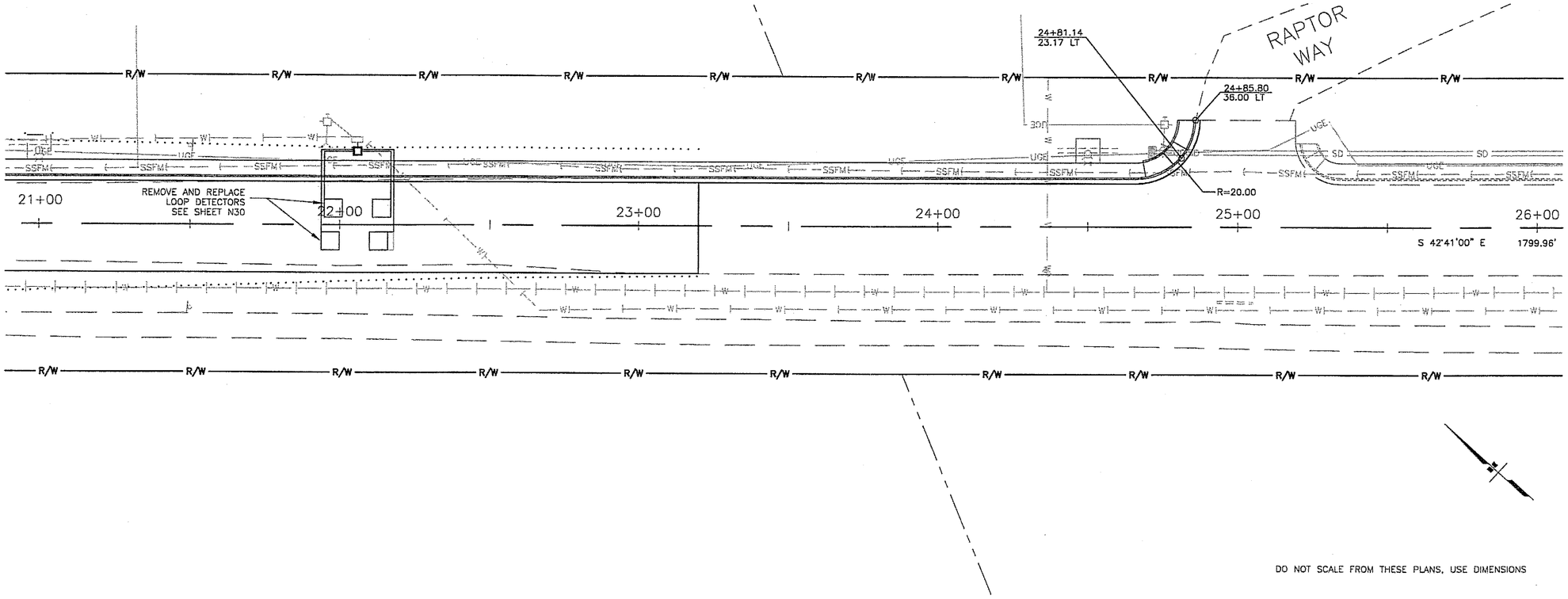
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

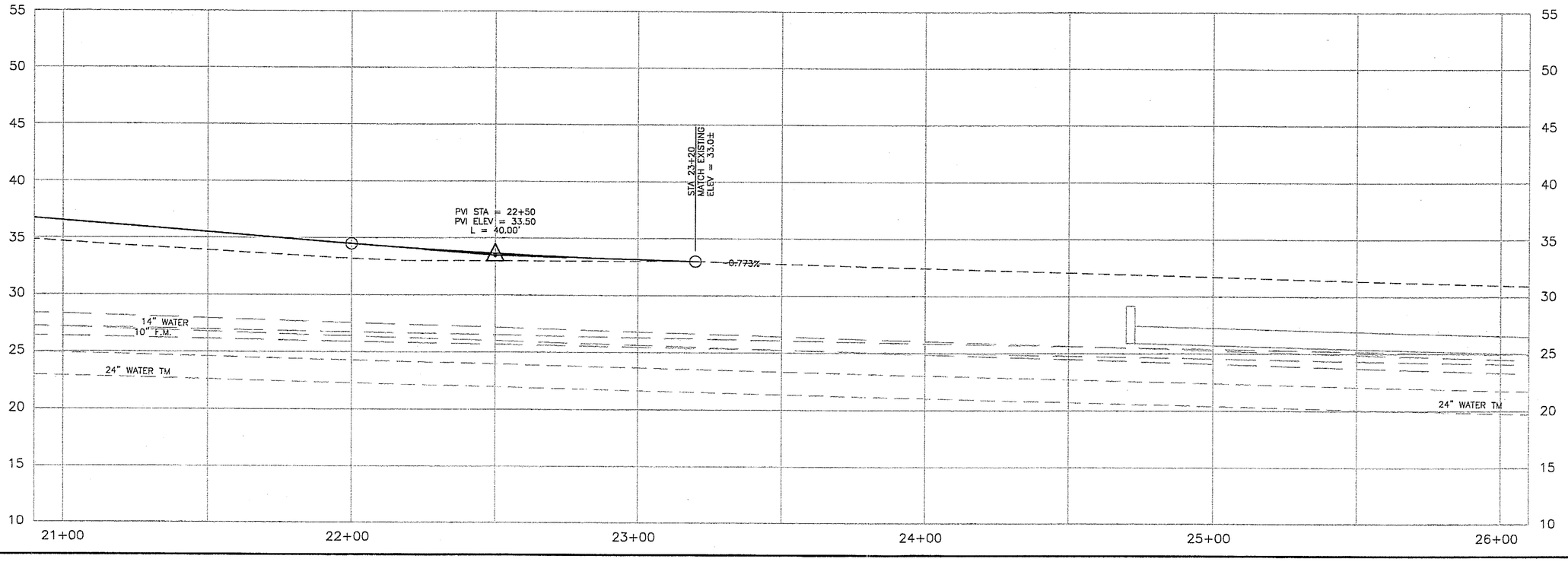
INDIAN RIVER BRIDGE
PLAN & PROFILE
STA. 16+00 TO STA. 21+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N4	120



DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS



PATH:
I:\695201\INDIAN RIVER BRIDGE\N05.dwg
Thu, 29/Dec/05 08:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
PLAN & PROFILE

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

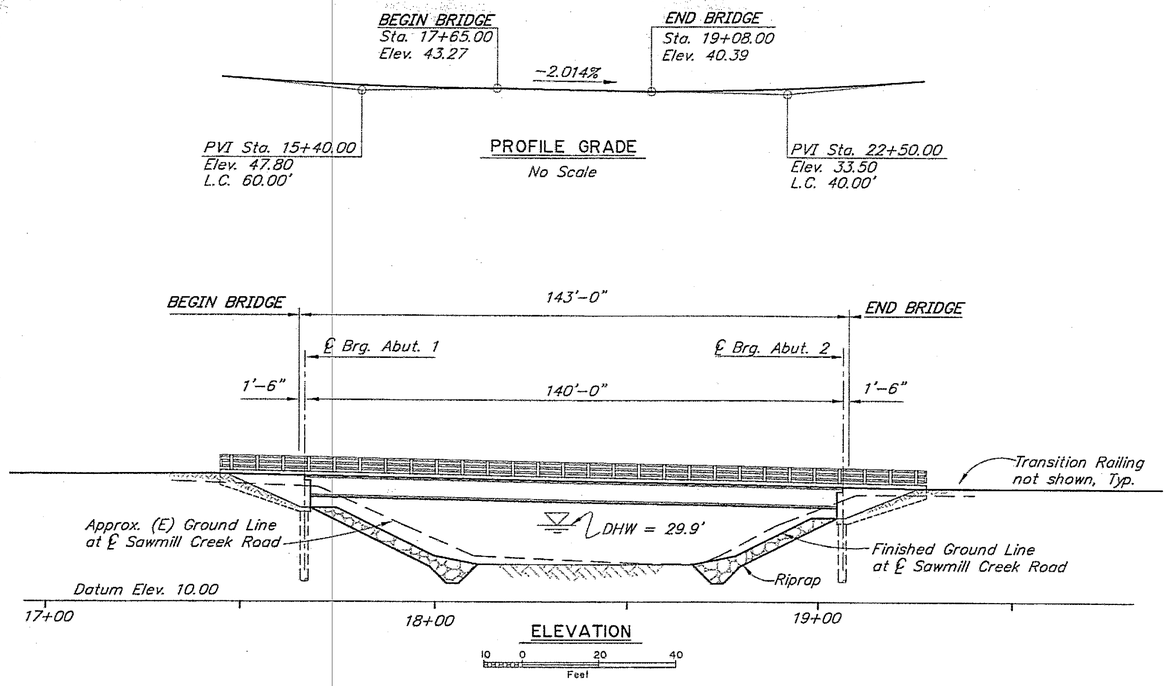
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

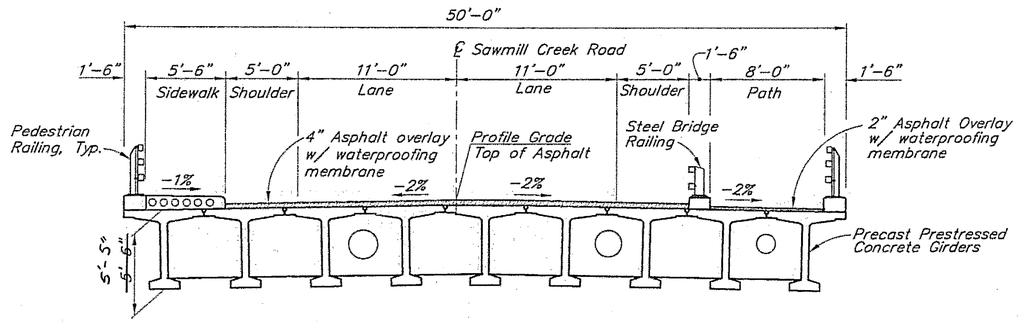
INDIAN RIVER BRIDGE
PLAN & PROFILE
STA. 21+00 TO STA. 26+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N5	120

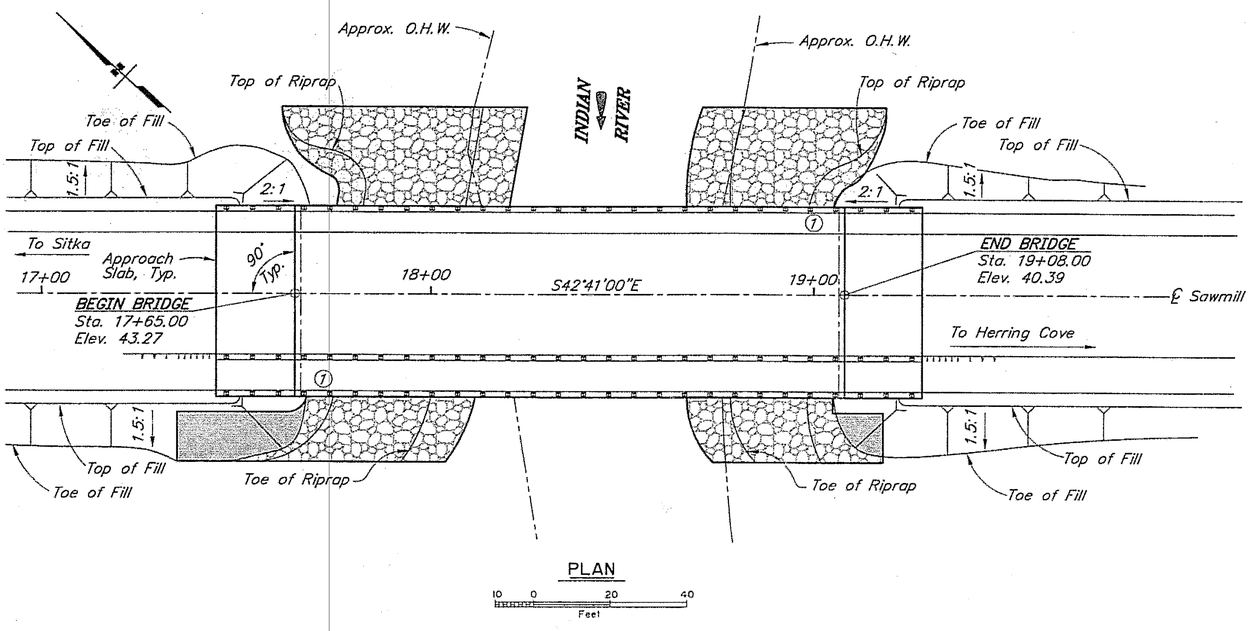
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N6	120





TYPICAL SECTION

12 0 5 10
In. Feet



BRIDGE BASIS OF ESTIMATE

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL
202(1)	Removal of Structures and Obstructions	LS	LS	All Req'd	All Req'd	All Req'd
205(1)	Excavation for Structures	CY	CY	170	——	170
205(3)	Foundation Fill	CY	CY	1790	——	1790
501(1)	Class A Concrete	LS	CY	109.4	54.9	164.3
501(2)	Class A-A Concrete	LS	CY	——	72.1	72.1
501(7)	Precast Concrete Member (66"x141'-6" Bulb-Tee Girder)	EA	EA	——	9	9
503(1)	Reinforcing Steel	LS	LBS	27,030	——	27,030
503(2)	Epoxy-Coated Reinforcing Steel	LS	LBS	80	23,030	23,110
505(5)	Furnish Structural Steel Piles	LF	LF	~~864~~	——	~~864~~
505(6)	Drive Structural Steel Piles	EA	EA	12	——	12
507(1)	Steel Bridge Railing	LF	LF	——	183	183
507(2)	Pedestrian Railing	LF	LF	——	366	366
508(1)	Waterproofing Membrane	LS	SY	——	814	814
606(12)	Guardrail / Bridge Rail Connection	EA	EA	——	2	2
611(1)	Riprap, Class II Plus	CY	CY	1120	——	1120
631(2)	Geotextile, Erosion Control, Class 1	SY	SY	1220	——	1220
643(29)	Temporary Crossing	LS	LS	All Req'd	All Req'd	All Req'd

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
ABUTMENT 1	4
ABUTMENT 2	5
ABUTMENT DETAILS	6
WINGWALLS	7
TYPICAL SECTION	8
GIRDERS	9
GIRDER DETAILS	10
APPROACH SLAB	11
STEEL BRIDGE RAILING	12
PEDESTRIAN RAILING	13

NOTES:

(E) = Existing

----- = Existing

——— = Proposed

① Denotes location of Bridge No. Plate.

DESIGNED BY: Larry Owen — Larry M. Owen	CHECKED: Elmer Marx — Elmer Marx	LAYOUT BY: Larry Owen — Larry M. Owen	CHECKED BY: Elmer Marx — Elmer Marx
DRAWN BY: Sam Sollie — Sam Sollie Jr.	CHECKED: Larry Owen — Larry M. Owen	SPECIFICATIONS BY: Larry Owen — Larry M. Owen	P S & E COMPARED: Larry Owen — Larry M. Owen
QUANTITIES BY: Larry Owen — Larry M. Owen	CHECKED: Elmer Marx — Elmer Marx	APPROVAL RECOMMENDED BY: Richard Pratt — Elmer E. Marx FOR R.A.P.	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA — 49TH — Larry M. Owen — No. CE 10666 — 12/4/05 — REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

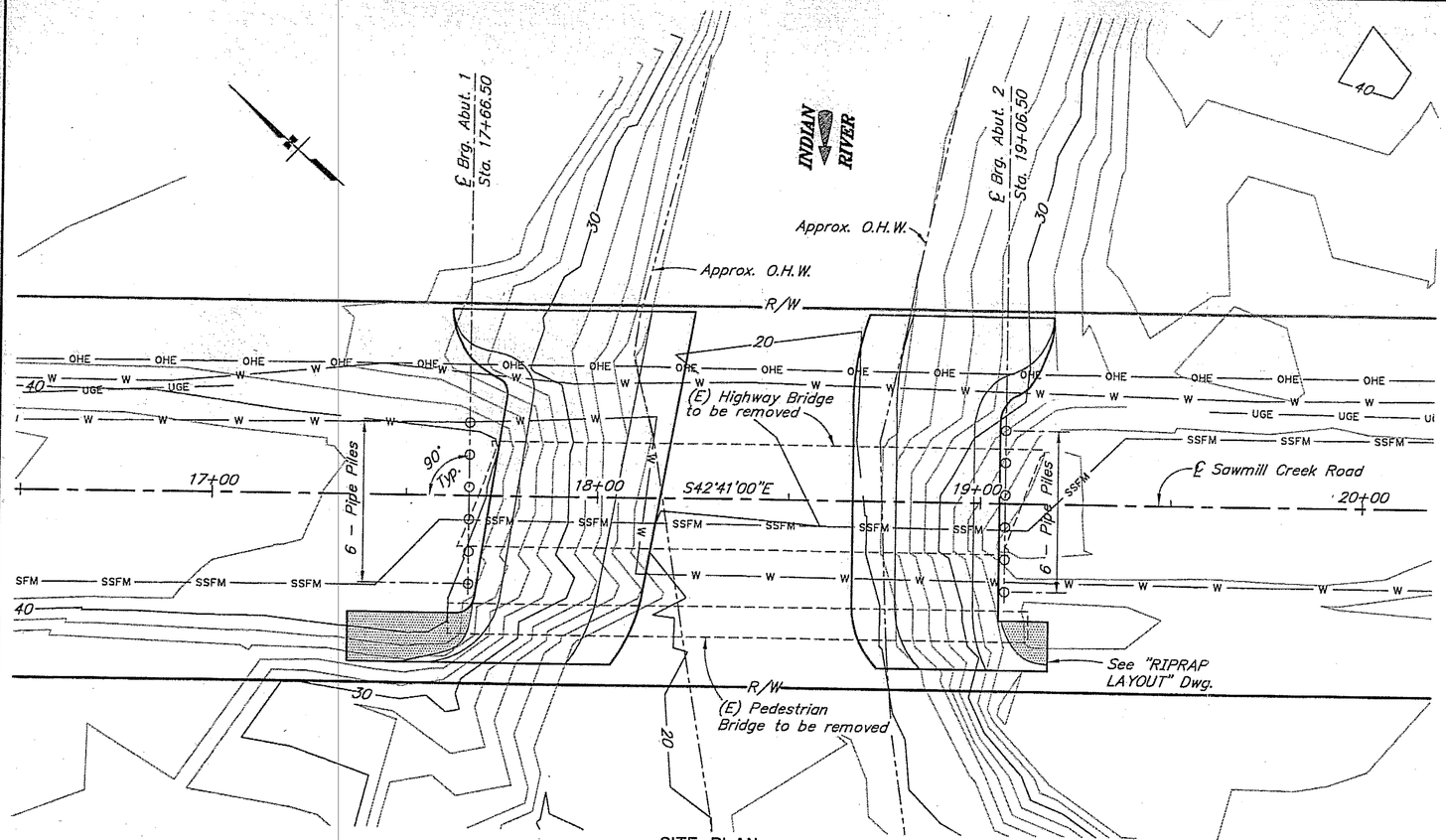
SAWMILL CREEK ROAD

GENERAL LAYOUT

BRIDGE NO. 865

DWG. NO. 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N7	120



SITE PLAN

10 0 20 40
Feet

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2004 Edition, with the latest Interim Specifications.

LIVE LOAD:..... HL-93

SEISMIC PARAMETERS:..... Acceleration Coefficient, a = 0.40g
Site Coefficient, S = 1.2
Liquefaction Potential = Moderate
AASHTO 90% Probability of not being exceeded in 50 years.

DEAD LOAD:..... Includes 50 psf for all wearing surfacing.

PRECAST CONCRETE:..... See "GIRDERS" Dwg.

CONCRETE:..... Use Class A Concrete for all concrete unless otherwise noted. f'c = 4000 psi

Use Class A-A Concrete for Approach Slabs. f'c = 5000 psi

REINFORCING STEEL:..... Use ASTM A706 reinforcing steel. Fy = 60,000 psi.
Space bars evenly unless otherwise noted.

STRUCTURAL STEEL:..... Use ASTM A709, Grade 36, Fy = 36,000 psi.
Galvanize all structural steel unless otherwise noted.

PILING: ..... API 5L PSL2, Grade X52. Fy = 52,000 psi.
Pile tip reinforcement is required for all piles.

PILE DATA TABLE

LOCATION	PILE TYPE	MINIMUM TIP ELEVATION	ESTIMATED TIP ELEVATION *	ULTIMATE CAPACITY	DESIGN LOAD
Abutment 1	24"ø x ½" Wall	-11.5	-67.5	980	435
Abutment 2	24"ø x ½" Wall	-14.5	-14.5	980	435

* - Bedrock and pile tip elevations vary across bridge width, maximum pile length shown.

HYDRAULIC & HYDROLOGIC SUMMARY

	50 Yr.	100 Yr.	500 Yr.
Flood Frequency (Yr.)	2	1	0.2
Exceedance Probability (%)	7190	7870	9450
Design Discharge (ft.³/sec)	29.3	29.9	31.3
Design High Water (ft.)		0	
Anticipated Add'l Backwater (ft.)	n/c	0	0
Contraction Scour (ft.)		na	na
Abutment Scour (ft.)			

Drainage Area for this crossing: .....12.0 sq. mile

Hydraulic Capacity: .....12,500 cfs at low superstructure elevation of 34.0 ft. which has an exceedance probability less than 0.2% (Q500).

PILE DATA TABLE

ABUTMENT NUMBER	PILE NUMBER	PILE TYPE	CUTOFF ELEV.	TIP ELEV.	GROUND ELEV.	TOTAL PENETRATION	SEATED INTO BEDROCK
1	1 (DOWN STREAM)	½" WALL 24" DIA	32.41	-48.51	32.41	80'-11"	—
1	2	½" WALL 24" DIA	32.41	-50.71	32.41	83'-2"	—
1	3	½" WALL 24" DIA	32.41	-48.34	32.41	80'-9"	—
1	4	½" WALL 24" DIA	32.41	-48.34	32.41	80'-9"	—
1	5	½" WALL 24" DIA	32.41	-45.84	32.41	78'-3"	—
1	6	½" WALL 24" DIA	32.41	-42.84	32.41	75'-3"	—
2	1 (DOWN STREAM)	½" WALL 24" DIA	29.60	-7.98	29.60	37'-7"	1'-10"
2	2	½" WALL 24" DIA	29.60	-2.32	29.60	31'-11"	2'-7"
2	3	½" WALL 24" DIA	29.60	5.35	29.60	24'-3"	2'-7"
2	4	½" WALL 24" DIA	29.60	10.10	29.60	19'-6"	2'-7"
2	5	½" WALL 24" DIA	29.60	13.18	29.60	16'-5"	2'-3"
2	6	½" WALL 24" DIA	29.60	14.10	29.60	15'-6"	2'-5"

ABBREVIATIONS

℄	= Centerline	e.f.	= each face
ℙ	= Plate	f.f.	= far face
&	= and	Grd.	= girder
@	= at	Hwy.	= Highway
ø	= diameter	Lbs.	= pounds
-------	= existing	LS	= lump sum
———	= proposed	max.	= maximum
—OHE—	= overhead electrical line	min.	= minimum
—SSFM—	= sewer line	n.a.	= not applicable
—UGE—	= underground electrical line	n.c.	= not calculated
—W—	= water line	n.f.	= near face
Approx.	= approximate	No.	= number
Abut.	= Abutment	o.c.	= on center
bot.	= bottom	O.H.W.	= Ordinary High Water
Br.	= Bridge	psi	= pounds per square inch
btwn.	= between	Req'd	= required
Brg.	= Bearings	R/W	= right of way
C.I.P.	= Cast-in-Place	spc.	= space, spaces
Clr.	= Clear, Clearance	Sta.	= station
col.	= column	Subst.	= substructure
dia.	= diameter	Superst.	= superstructure
D.H.W.	= Design High Water	Symm.	= symmetric
Dwg.	= drawing	SY	= square yard
(E)	= existing	Typ.	= typical
Ea.	= each	UT	= utrasonic testing
Elev.	= elevation		

DESIGNED BY: Larry Owen — Larry M. Owen	CHECKED: Elmer Marx — Elmer Marx	HYDRAULICS BY: Mark Miles	CHECKED BY: Anne Castle — Anne M. Castle
DRAWN BY: Sam Sollie — Sam Sollie Jr.	CHECKED: Larry Owen — Larry M. Owen	FOUNDATIONS REVIEWED BY: Bruce Brunnett — Bruce L. Brunnett	
QUANTITIES BY: Larry Owen — Larry M. Owen	CHECKED: Elmer Marx — Elmer Marx		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Larry M. Owen No. CE 10666 12/21/05 — REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

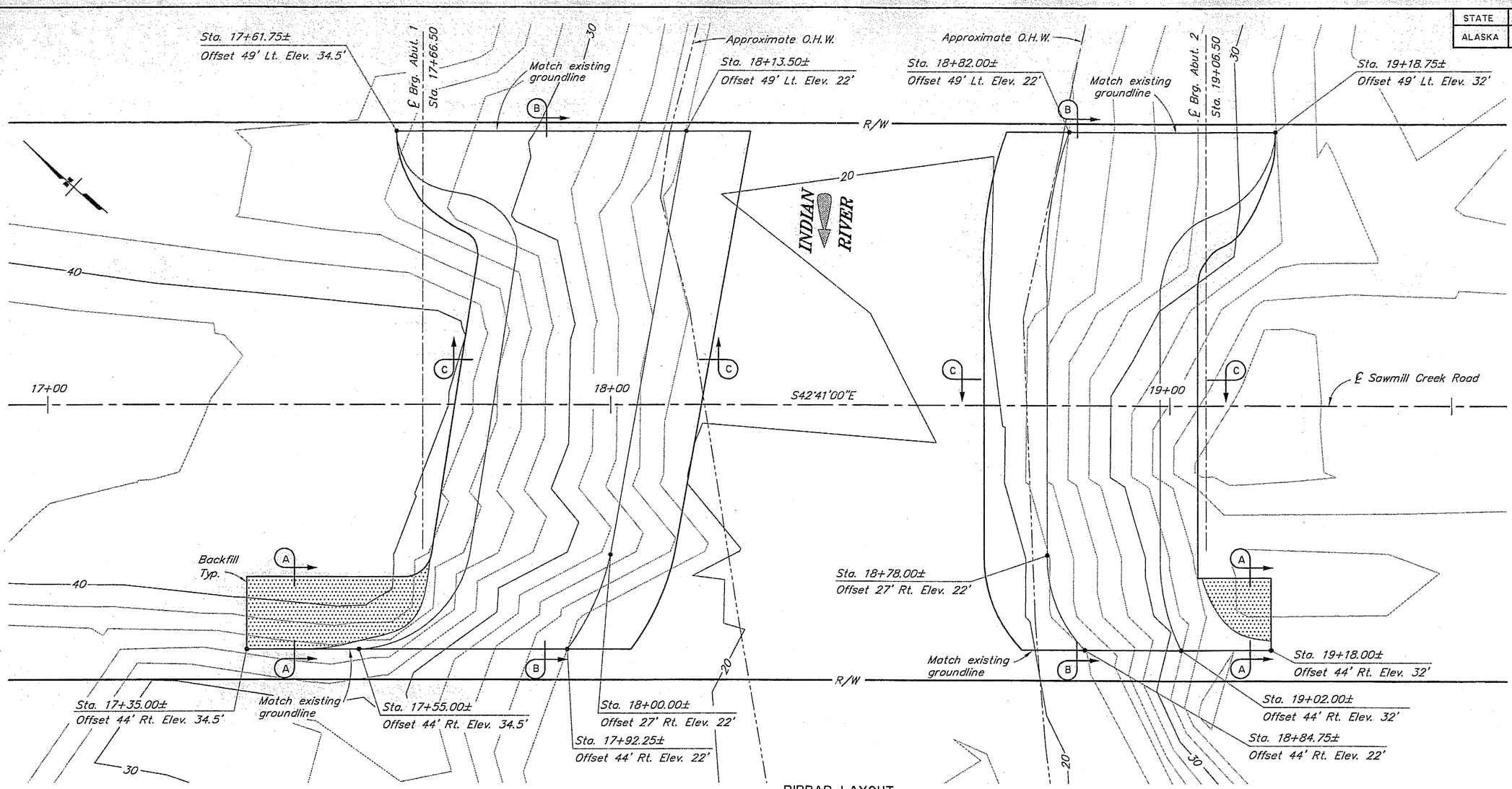
SITE PLAN

BRIDGE NO. 865

DWG. NO. 2

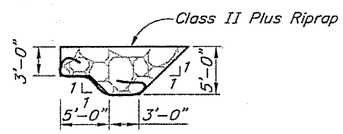
P:\865\865.dwg, 12/20/2005 9:35:32 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N8	120

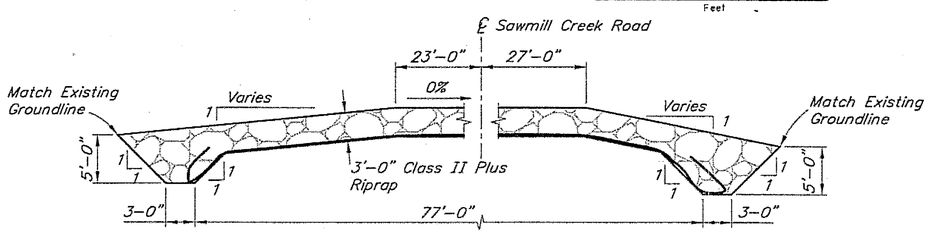


RIPRAP LAYOUT

10 5 0 10 20 Feet



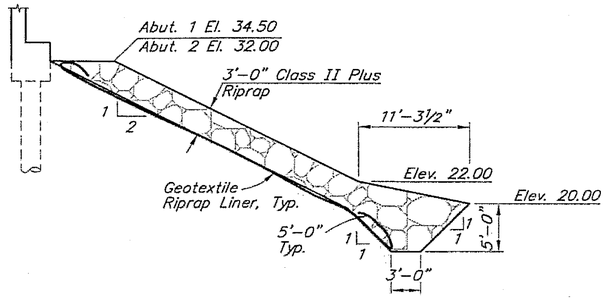
SECTION A-A



SECTION B-B

RIPRAP DETAILS

12 0 4 8 12 In. Feet



SECTION C-C

NOTES:

= Back fill to match grade

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49 TH
Larry M. Owen
No. CE 10666
12/21/05
REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

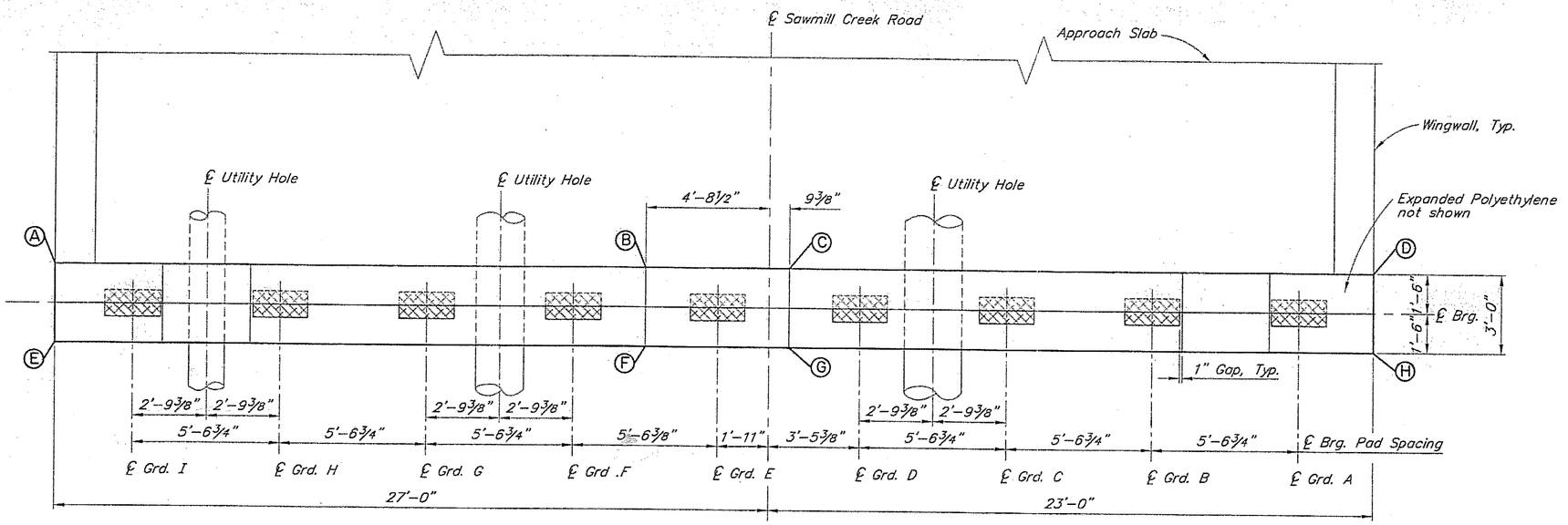
RIPRAP LAYOUT

BRIDGE NO. 865

DWG. NO. 3

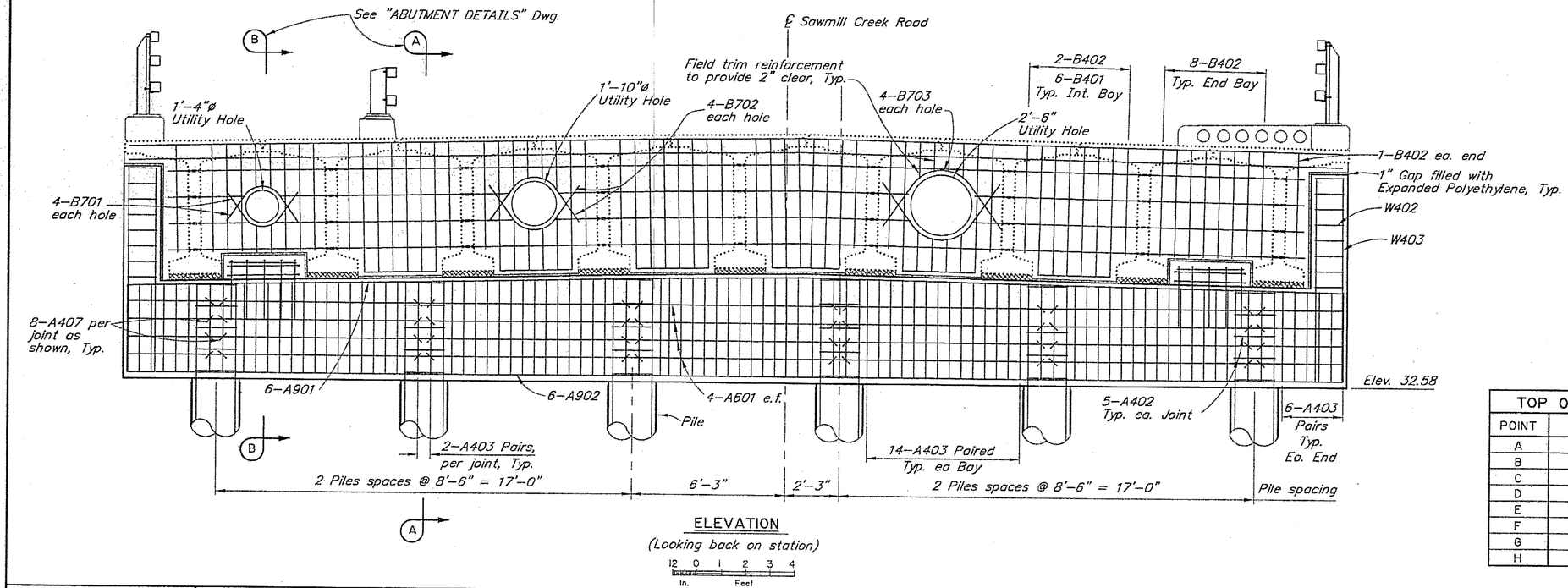
P:\865\865.dwg, 12/20/2005 9:35:37 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N9	120



PLAN

12 0 1 2 3 4
In. Feet

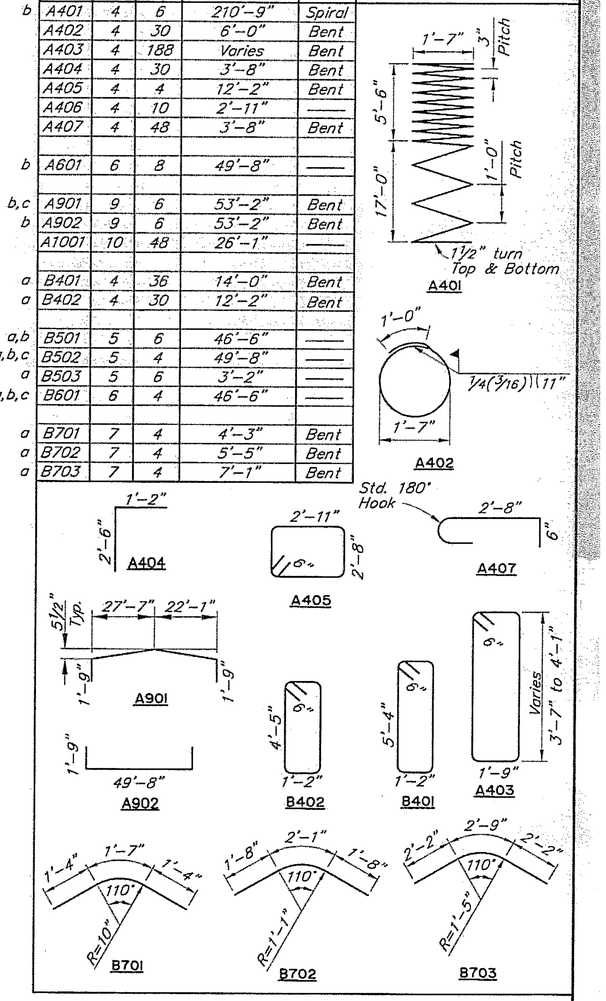


ELEVATION
(Looking back on station)

12 0 1 2 3 4
In. Feet

REINFORCING STEEL-ABUTMENT I

	MARK	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
b	A401	4	6	210'-9"	Spiral	
	A402	4	30	6'-0"	Bent	
	A403	4	188	Varies	Bent	
	A404	4	30	3'-8"	Bent	
	A405	4	4	12'-2"	Bent	
	A406	4	10	2'-11"	——	
	A407	4	48	3'-8"	Bent	
b	A601	6	8	49'-8"	——	
b,c	A901	9	6	53'-2"	Bent	
b	A902	9	6	53'-2"	Bent	
	A1001	10	48	26'-1"	——	
a	B401	4	36	14'-0"	Bent	
a	B402	4	30	12'-2"	Bent	
a,b	B501	5	6	46'-6"	——	
a,b,c	B502	5	4	49'-8"	——	
a	B503	5	6	3'-2"	——	
a,b,c	B601	6	4	46'-6"	——	
a	B701	7	4	4'-3"	Bent	
a	B702	7	4	5'-5"	Bent	
a	B703	7	4	7'-1"	Bent	



a – Epoxy coated reinforcing steel.
b – Length does not include splices.
c – Field bend bars to match crown..

TOP OF CAP ELEVATIONS	
POINT	ABUTMENT I
A	~~36.64~~ 36.72
B	~~37.09~~ 37.17
C	~~37.17~~ 37.25
D	~~36.72~~ 36.80
E	~~36.58~~ 36.66
F	~~37.03~~ 37.11
G	~~37.11~~ 37.19
H	~~36.66~~ 36.74

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx	
DRAWN BY: Sam Sollie	CHECKED: Larry Owen	
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Larry M. Owen
No. CE 10666
12/16/05
REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

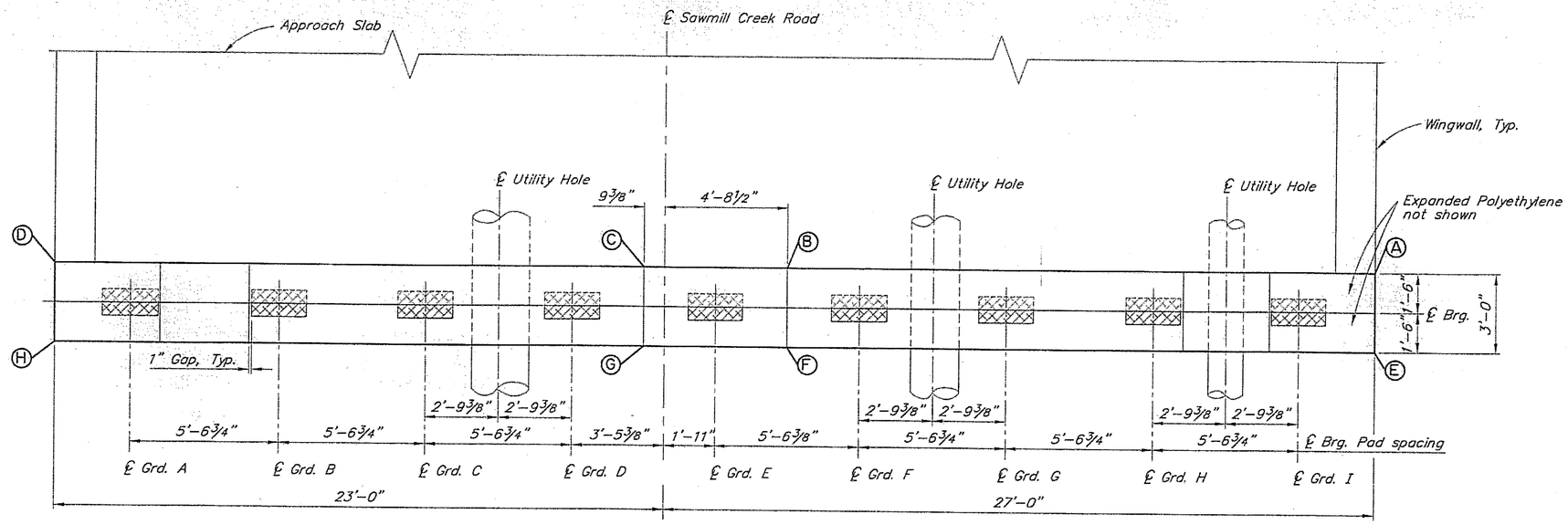
SAWMILL CREEK ROAD

ABUTMENT 1

BRIDGE NO. 865
DWG. NO. 4

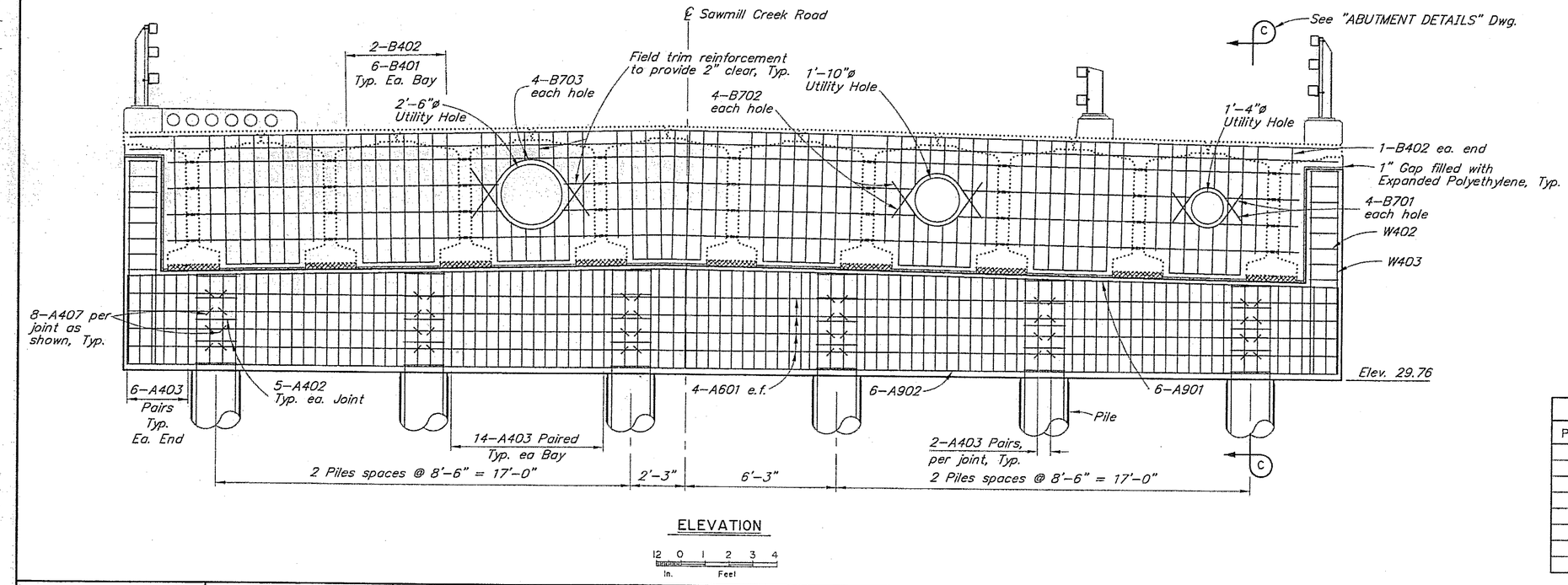
P:\865\865.dwg, 12/20/2005 9:35:42 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N10	120



PLAN

12 0 1 2 3 4 In. Feet

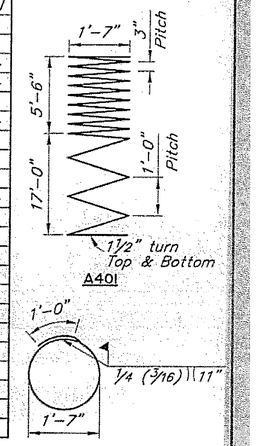


ELEVATION

12 0 1 2 3 4 In. Feet

REINFORCING STEEL-ABUTMENT 2

	MARK	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
b	A401	4	6	210'-9"	Spiral	
	A402	4	30	6'-0"	Bent	
	A403	4	188	Varies	Bent	
	A407	4	48	3'-8"	——	
a	A408	4	24	5'-0"	——	
b	A601	6	8	49'-8"	——	
b,c	A901	9	6	53'-2"	Bent	
b	A902	9	6	53'-2"	Bent	
	A1001	10	48	26'-1"	——	
a	B401	4	48	14'-0"	Bent	
a	B402	4	18	12'-2"	Bent	
a,b	B501	5	6	46'-6"	——	
a,b,c	B502	5	4	49'-8"	——	
a	B503	5	8	3'-2"	——	
a,b,c	B601	6	4	46'-6"	——	
a	B701	7	4	4'-3"	Bent	
a	B702	7	4	5'-5"	Bent	
a	B703	7	4	7'-1"	Bent	



a – Epoxy coated reinforcing steel.
b – Length does not include splices.
c – Field bend bars to match crown.

TOP OF CAP ELEVATIONS	
POINT	ABUTMENT 2
A	~~33.76~~ 33.84
B	34.21 34.29
C	34.29 34.37
D	33.84 33.92
E	33.82 33.90
F	34.27 34.50
G	34.35 34.43
H	33.90 33.98

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Larry M. Owen No. CE 10866 12/21/05 REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

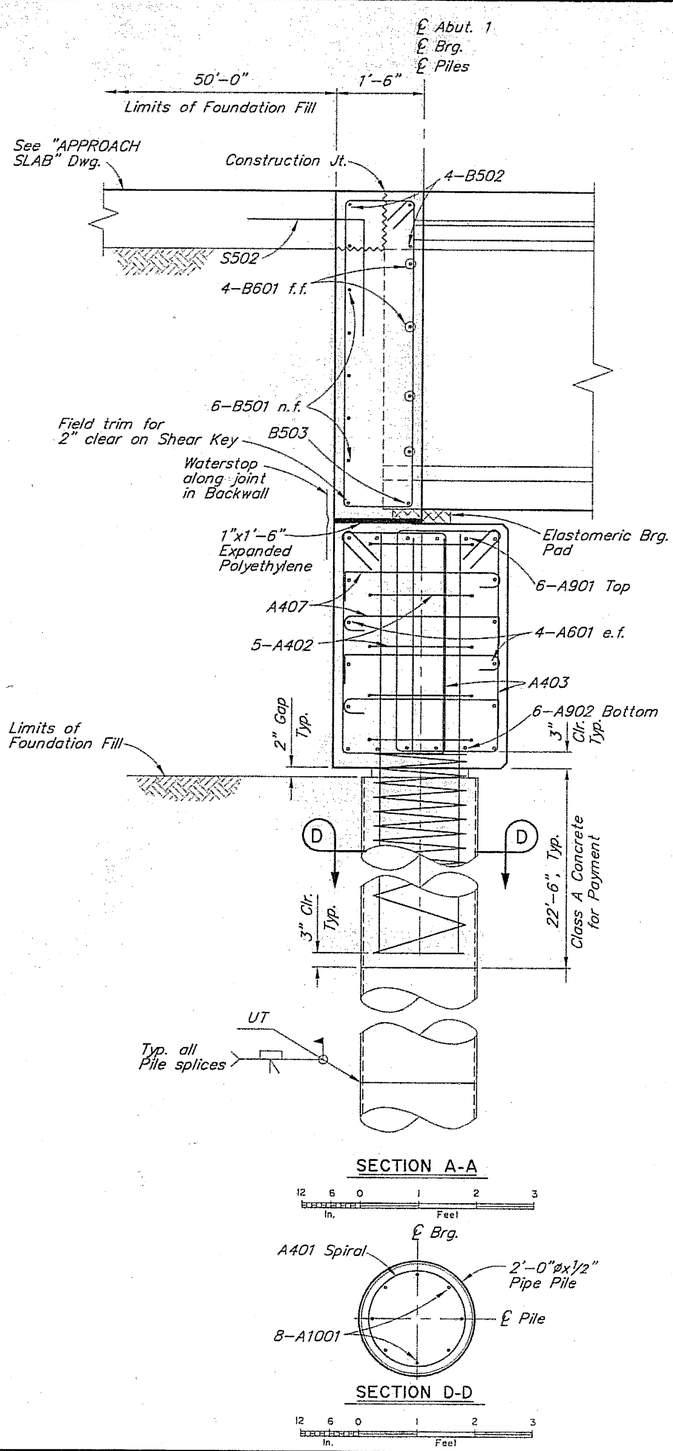
SAWMILL CREEK ROAD

ABUTMENT 2

BRIDGE NO. 865
DWG. NO. 5

P:\865\865.dwg, 12/20/2005 9:35:47 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N11	120

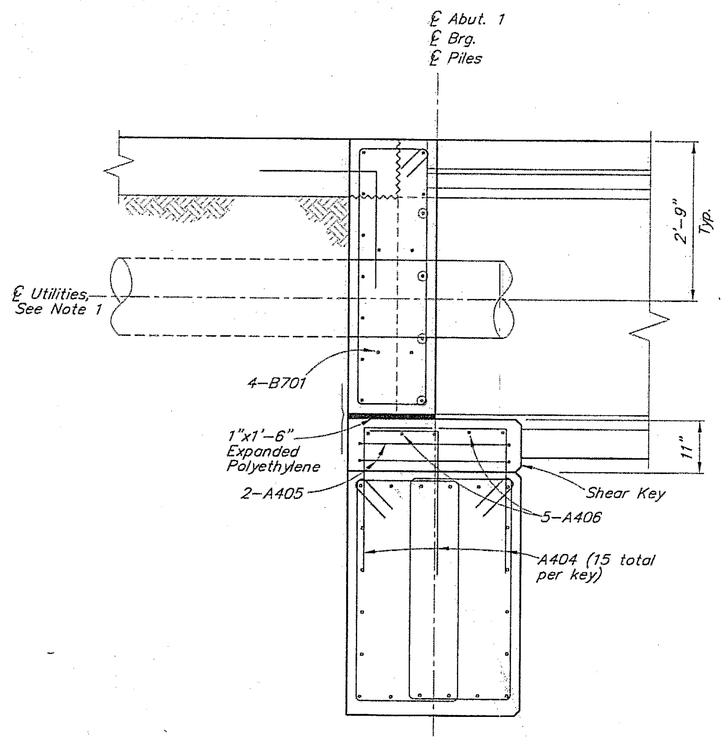


SECTION A-A

12 6 0 1 2 3
In. Feet

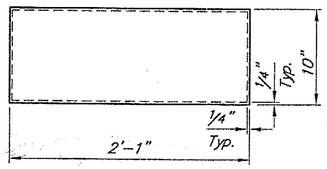
SECTION D-D

12 6 0 1 2 3
In. Feet



SECTION B-B

12 6 0 1 2 3
In. Feet



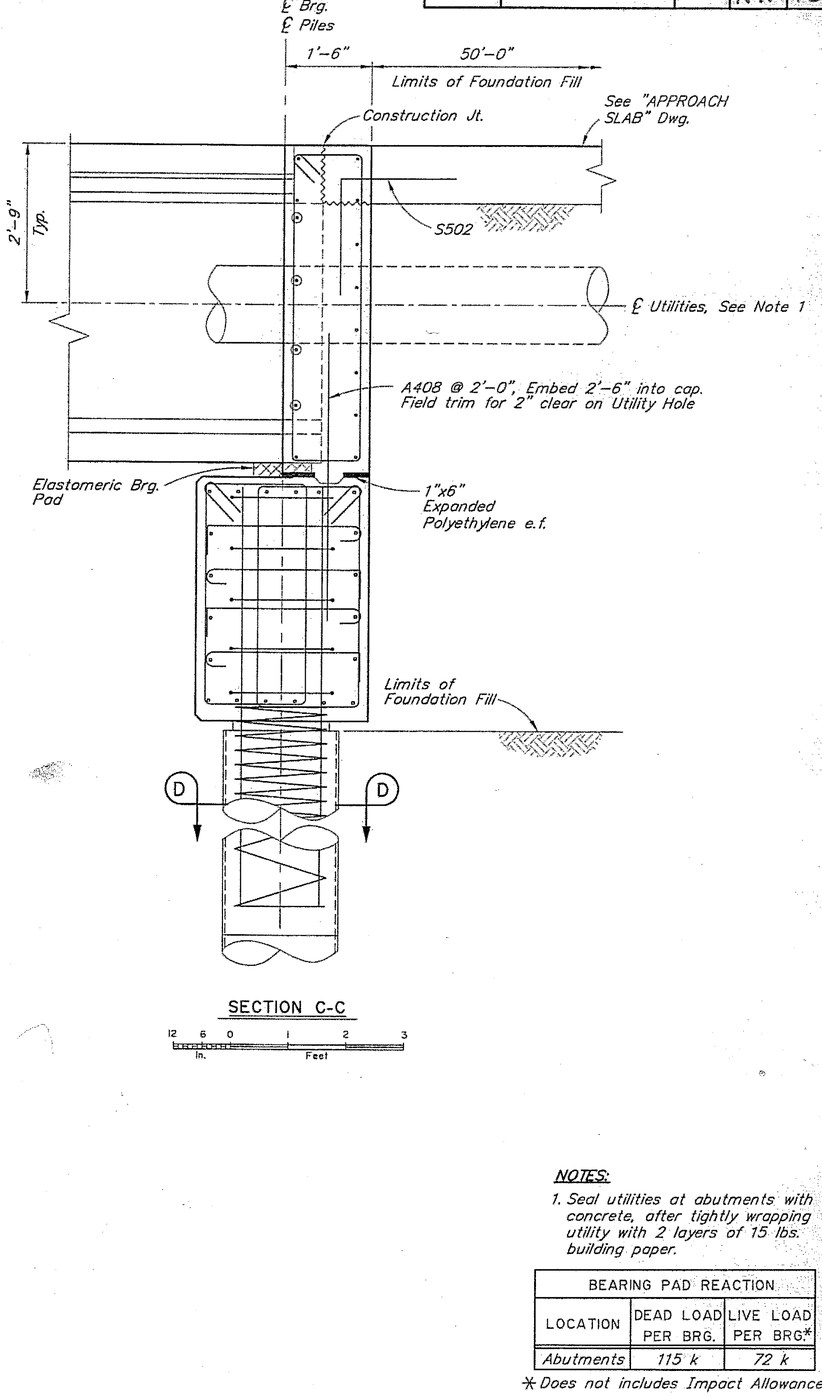
PLAN

ELEVATION

BEARING PAD

(50 Durometer)

12 6 0 1
In. Feet



SECTION C-C

12 6 0 1 2 3
In. Feet

NOTES:

1. Seal utilities at abutments with concrete, after tightly wrapping utility with 2 layers of 15 lbs. building paper.

BEARING PAD REACTION		
LOCATION	DEAD LOAD PER BRG.	LIVE LOAD PER BRG.*
Abutments	115 k	72 k

* Does not includes Impact Allowance

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx	
DRAWN BY: Sam Sollie	CHECKED: Larry Owen	
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Larry M. Owen
No. CE 10656
12/21/05
REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

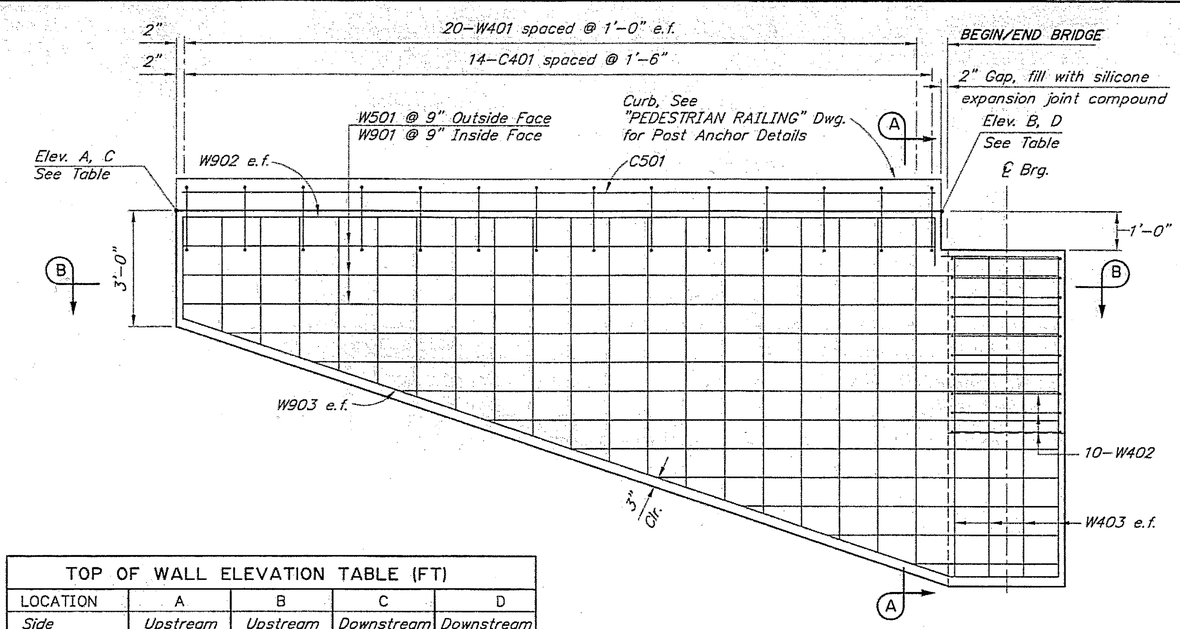
ABUTMENT DETAILS

BRIDGE NO. 865

DWG. NO. 6

P:\865\865.dwg, 12/20/2005 9:35:52 AM

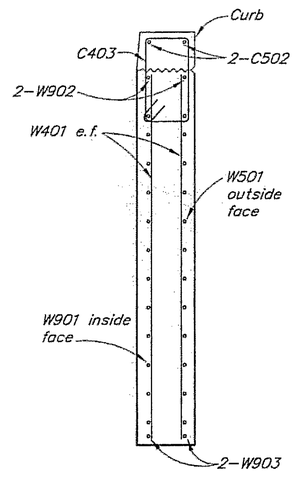
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N12	120



TOP OF WALL ELEVATION TABLE (FT)				
LOCATION	A	B	C	D
Side	*Upstream*	*Upstream*	*Downstream*	*Downstream*
Abutment 1	*42.91'*	*42.51'*	*42.83'*	*42.43'*
Abutment 2	*39.22'*	*39.62'*	*39.14'*	*39.54'*

ELEVATION

12 6 0 1 2 3 4 In. Feet

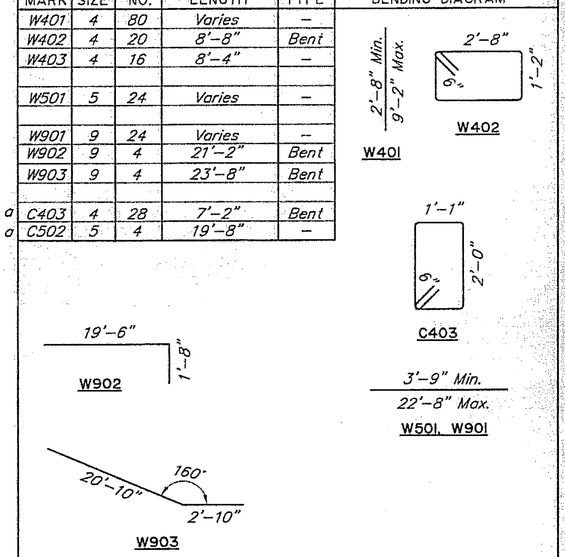


SECTION A-A

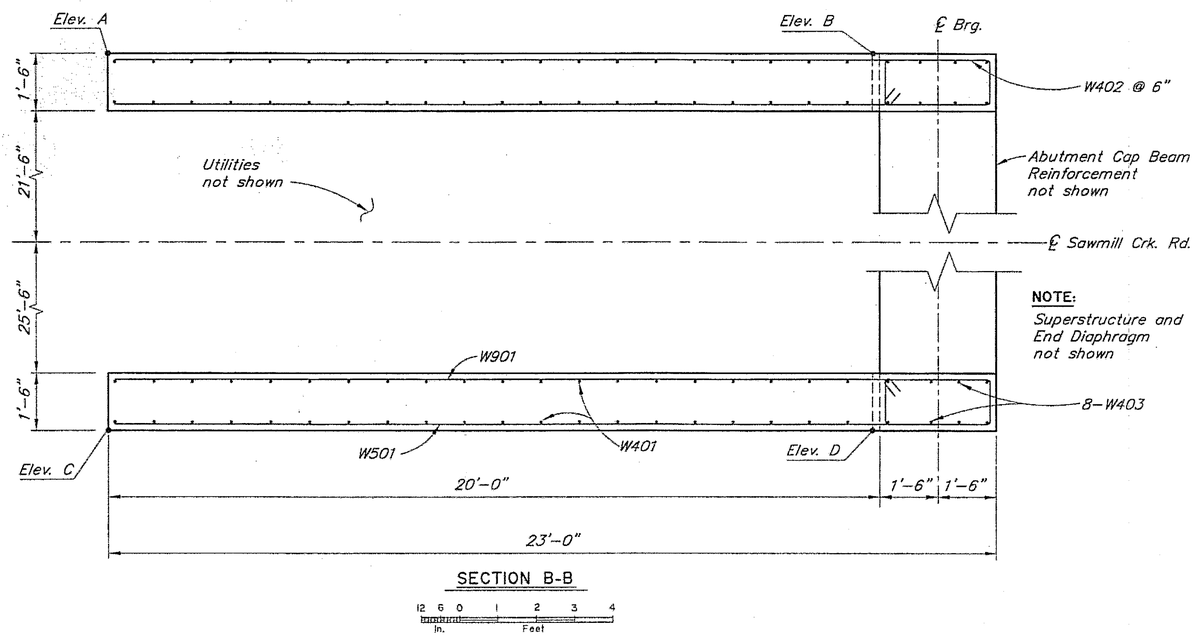
12 6 0 1 2 3 4 In. Feet

REINFORCING STEEL-ONE ABUTMENT

MARK	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401	*4*	*80*	*Varies*	*–*	
W402	*4*	*20*	*8'–8"*	*Bent*	
W403	*4*	*16*	*8'–4"*	*–*	
W501	*5*	*24*	*Varies*	*–*	
W901	*9*	*24*	*Varies*	*–*	
W902	*9*	*4*	*21'–2"*	*Bent*	
W903	*9*	*4*	*23'–8"*	*Bent*	
a *C403*	*4*	*28*	*7'–2"*	*Bent*	
a *C502*	*5*	*4*	*19'–8"*	*–*	

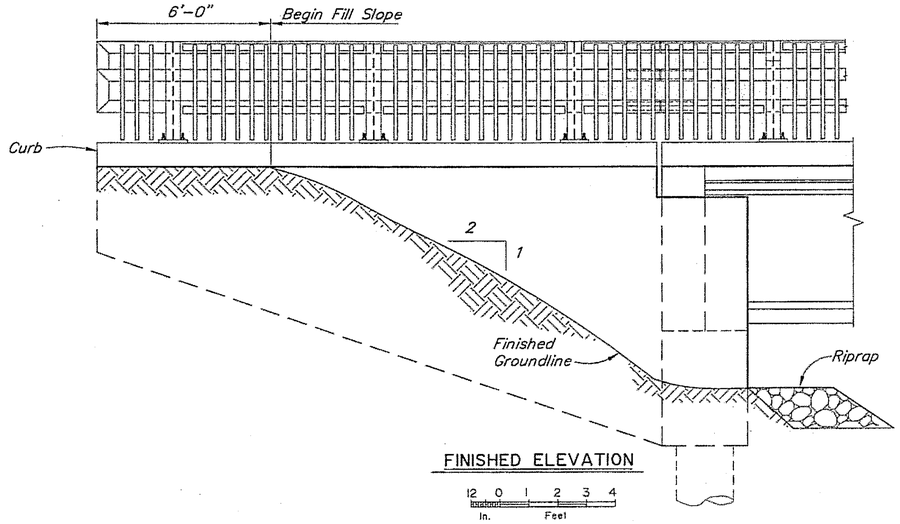


a – Epoxy coated reinforcing steel.



SECTION B-B

12 6 0 1 2 3 4 In. Feet



FINISHED ELEVATION

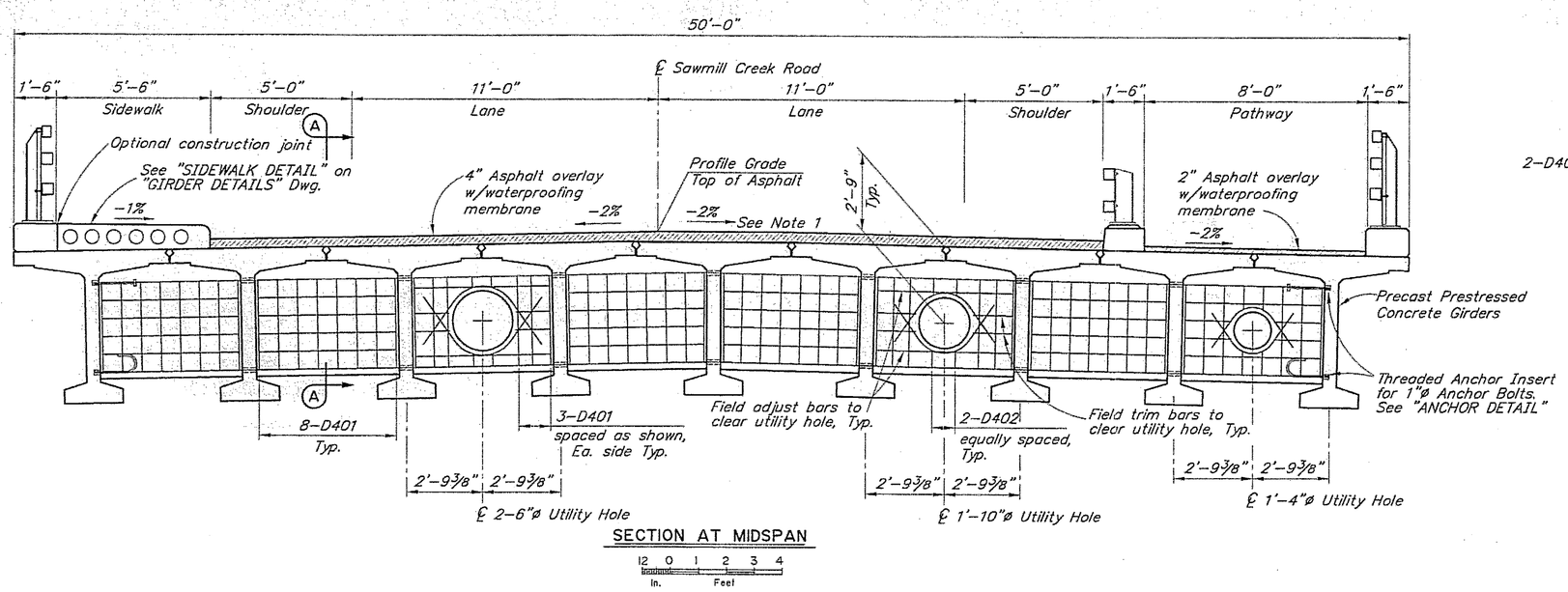
12 0 1 2 3 4 In. Feet

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION	INDIAN RIVER BRIDGE SAWMILL CREEK ROAD WINGWALLS
DRAWN BY: Sam Sollie	CHECKED: Larry Owen		BRIDGE NO. 865 DWG. NO. 7
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx		

STATE OF ALASKA 49 TH Larry M. Owen Larry M. Owen No. PE-10665 12/21/05 REGISTERED PROFESSIONAL ENGINEER

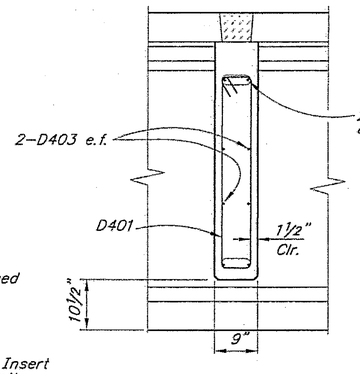
P:\865\865.dwg, 12/20/2005 9:35:57 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N13	120



SECTION AT MIDSPAN

12 0 1 2 3 4
In. Feet



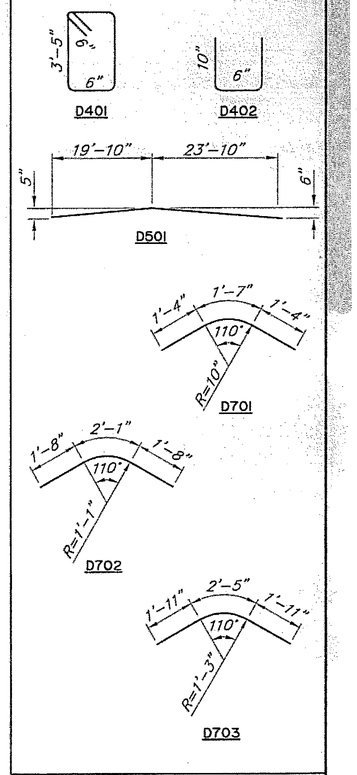
SECTION A-A

12 6 0 1 2 3
In. Feet

a REINFORCING STEEL SCHEDULE-ONE DIAPHRAGM

MARK	SIZE	NO.	LENGTH	TYPE
D401	4	58	8'-10"	Bent
D402	4	12	2'-2"	Bent
D403	4	32	4'-8"	——
b D501	5	4	43'-9"	Bent
D701	7	4	4'-3"	Bent
D702	7	4	5'-5"	Bent
D703	7	4	6'-3"	Bent

BENDING DIAGRAM



a – Epoxy coated reinforcing steel.
b – Length does not include splices.

183'-0" Length of Railing for Payment

BEGIN BRIDGE — 143'-0" — END BRIDGE

5'-6" — 33 spaces @ 4'-0" = 132'-0" Shear Connector Spacing — 5'-6"

℄ Intermediate Diaphragm

71'-6" — 71'-6"

2'-9 1/8"

50'-0" out to out of Deck

8 spaces @ 5'-6 3/4" ± = 44'-5 3/4" measured @ ℄ Girder Top Flange

℄ Sawmill Creek Road

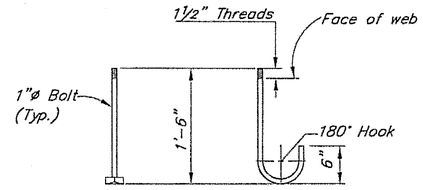
℄ Girder A
℄ Girder B
℄ Girder C
℄ Girder D
℄ Girder E
℄ Girder F
℄ Girder G
℄ Girder H
℄ Girder I

2'-9 1/8"

2'-7 1/2" — 27 spaces @ 6'-7" = 177'-9" Rail Post Spacing (Typ.) — 2'-7 1/2"

FRAMING PLAN

12 0 5 10 15 20
In. Feet



TOP ANCHOR — BOTTOM ANCHOR

ASTM A307 GALVANIZED

ANCHOR DETAIL

12 6 0 1 2
In. Feet

NOTES:

1. Taper asphalt overlay over Girder E and Approach Slab to match roadway Typical Section.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Larry M. Owen No. CE 11866 — REGISTERED PROFESSIONAL ENGINEER — 12/20/05

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

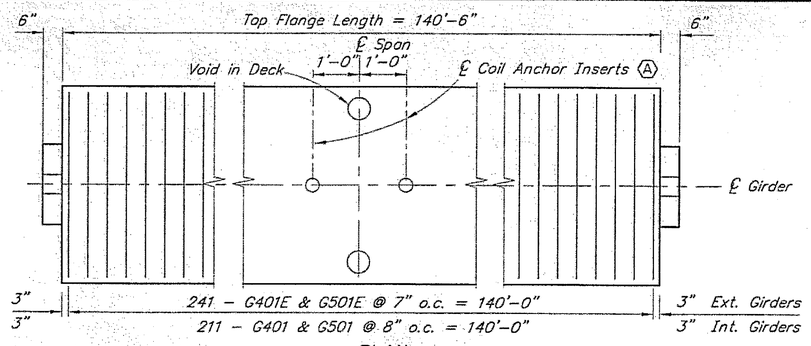
TYPICAL SECTION

BRIDGE NO. 865

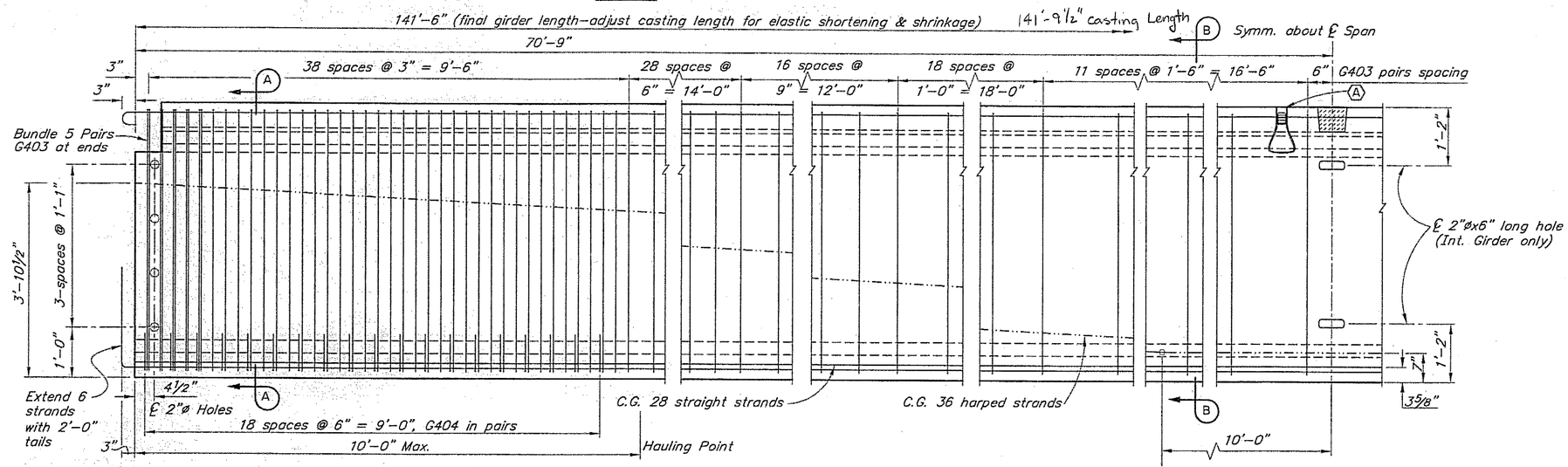
DWG. NO. 8

P:\865\865.dwg, 12/20/2005 9:36:02 AM

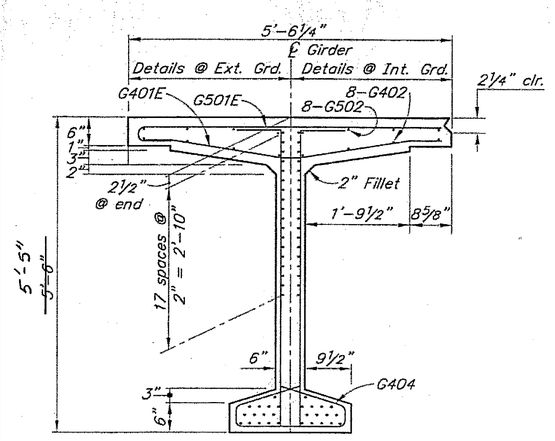
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N14	120



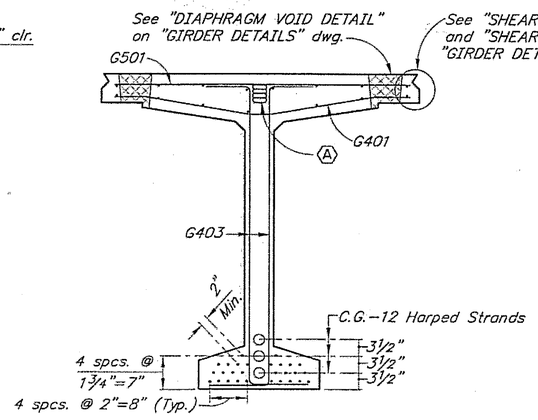
PLAN



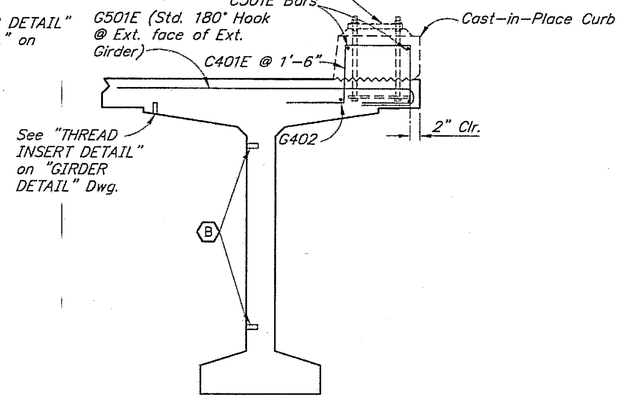
ELEVATION



SECTION A-A



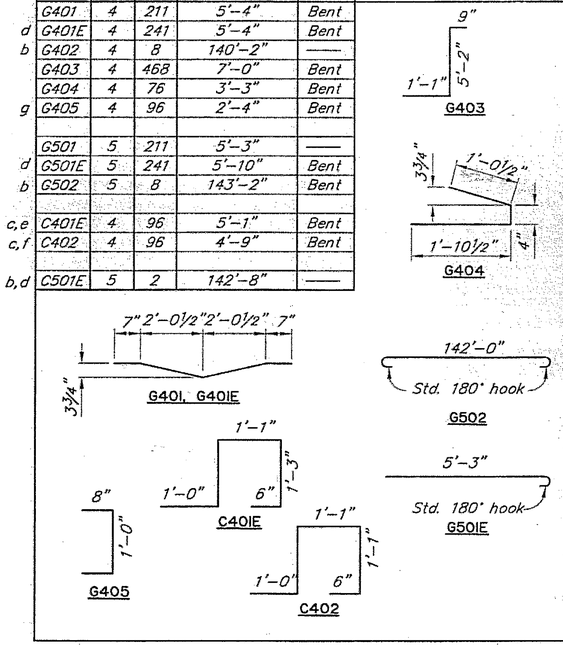
SECTION B-B



EXTERIOR GIRDER NEAR MIDSPAN

a–REINFORCING STEEL SCHEDULE–ONE GIRDER

	MARK	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
	G401	4	211	5'–4"	Bent	
d	G401E	4	241	5'–4"	Bent	
b	G402	4	8	140'–2"	——	
	G403	4	468	7'–0"	Bent	
	G404	4	76	3'–3"	Bent	
g	G405	4	96	2'–4"	Bent	
	G501	5	211	5'–3"	——	
d	G501E	5	241	5'–10"	Bent	
b	G502	5	8	143'–2"	Bent	
c,e	C401E	4	96	5'–1"	Bent	
c,f	C402	4	96	4'–9"	Bent	
b,d	C501E	5	2	142'–8"	——	



a – Epoxy coated reinforcing steel.
b – Length does not include splices.
c – Ship 4 loose.
d – Girders A, H, and I only.
e – Girder A and I only.
f – Girder H only.
g – Girder B only.

Ⓐ – 1"ø x 1'–0" Coil Anchor Insert for vertical adjustment of girders. Recess 2". Prevent concrete from filling hole.

Ⓑ – 1"ø Threaded Insert. Provide Dayton/Richmond Rocket, Burke Hi–Tensile, Lancaster Malleable or an approved equivalent.

NOTES:

Use normal weight concrete with the following strengths:
at Stress Transfer.....f'ci = 6750 psi
at 28 Days.....f'c = 8000 psi

Use ½"ø low–relaxation prestressing strands with an ultimate strength of 270 ksi and a cross section area of 0.153 in²

Design is based on the following steel stresses:
Pretensioning – Jacking Stress 189 ksi
after initial losses 170 ksi
after all losses 141 ksi

One inch clear on all reinforcing except as noted.

Deflect forms to compensate for camber and roadway grade.

Provide a magnesium float finish on the roadway surface of the precast member. Roughen the surface under the railing curbs.

Omit Shear Key & Shear Key Connectors outside of Exterior Girders.

Cast girder ends plumb.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Larry M. Owen
No. CE 19666
REGISTERED PROFESSIONAL ENGINEER
12/21/05

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

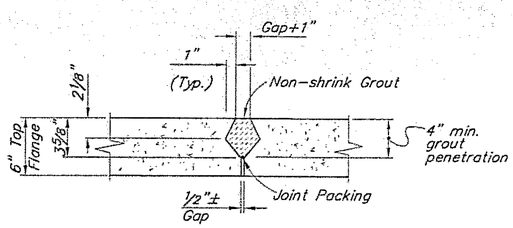
GIRDERS

BRIDGE NO. 865

DWG. NO. 9

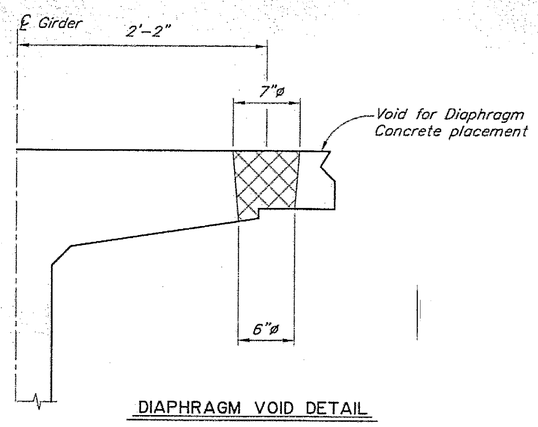
P:\865\865.dwg, 12/20/2005 9:36:07 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N15	120



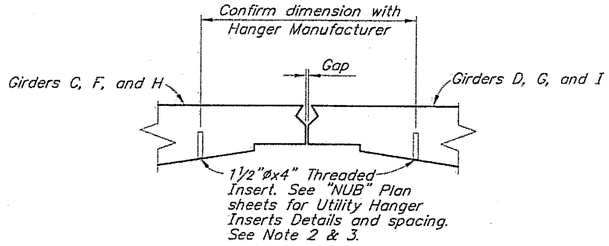
SHEAR KEY DETAIL

12 6 0 1
In. Feet



DIAPHRAGM VOID DETAIL

12 6 0 1
In. Feet



THREADED INSERT DETAIL

12 6 0 1 2
In. Feet

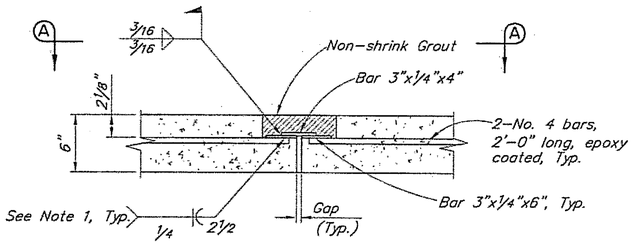
a REINFORCING STEEL SCHEDULE-ONE SIDEWALK

	MARK	SIZE	NO.	LENGTH	TYPE
	R401	4	96	5'-8"	Bent
b	R402	4	11	142'-8"	–

BENDING DIAGRAM

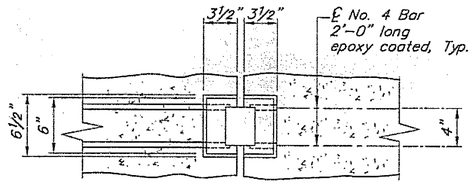
Std. 180° Hook
5'-2"
R401

a – Epoxy coated reinforcing steel.
b – Length does not include splices.



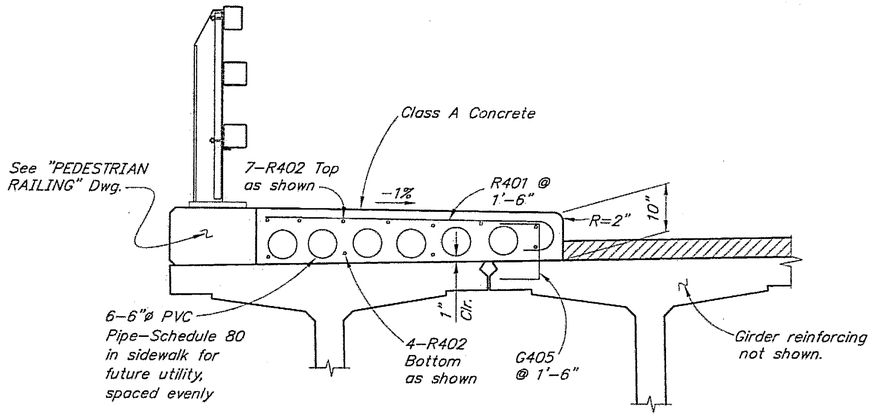
SHEAR CONNECTOR DETAIL

12 6 0 1
In. Feet



VIEW A-A

12 6 0 1
In. Feet



SIDEWALK DETAIL

12 6 0 1 2 3
In. Feet

NOTE:

1. Remove epoxy coating from areas to be welded prior to welding.
2. Anchorage for threaded rod must provide a safe working load of 3500 lbs.
3. Secure all nuts and threaded rod connections with a threaded locking system.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Larry M. Owen
No. PE 9866
REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

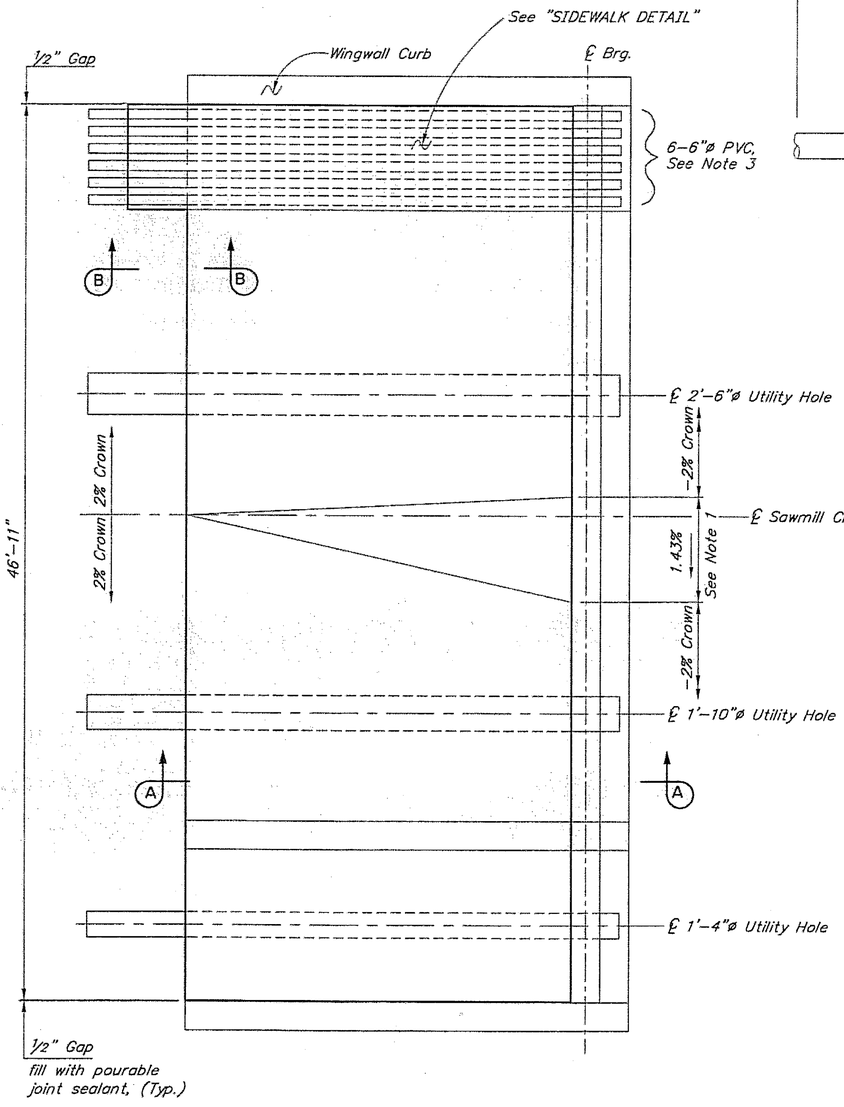
SAWMILL CREEK ROAD

GIRDER DETAILS

BRIDGE NO. 865
DWG. NO. 10

P:\865\865.dwg, 12/20/2005 9:36:12 AM

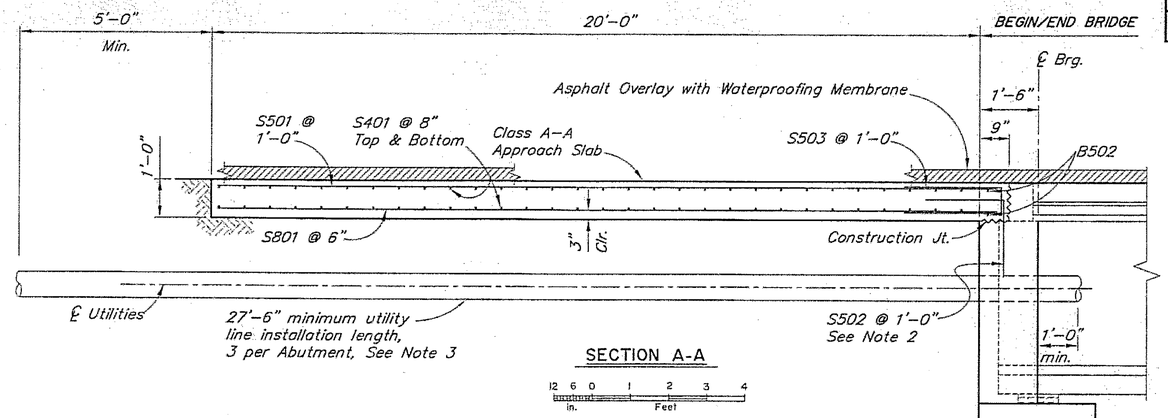
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N16	120



PLAN

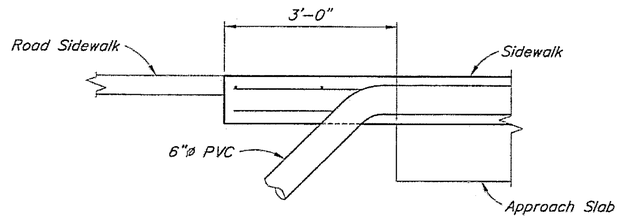
(Abutment 1 shown Abutment 2 similar)

12 0 4 8
In. Feet



SECTION A-A

12 6 0 1 2 3 4
In. Feet



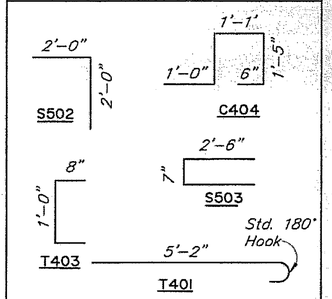
SECTION B-B

12 6 0 2 3
In. Feet

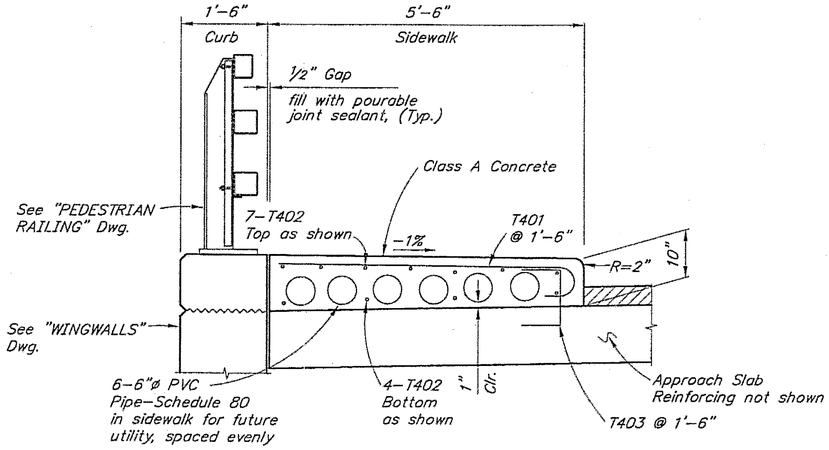
a REINFORCING STEEL SCHEDULE - ONE SLAB

	MARK	SIZE	NO.	LENGTH	TYPE
b	S401	4	60	46'-7"	–
	S501	5	48	20'-5"	–
	S502	5	48	5'-0"	Bent
	S503	5	48	5'-7"	Bent
	S801	8	96	20'-5"	–
	T401	4	16	5'-8"	Bent
	T402	4	11	22'-6"	–
	T403	4	14	2'-4"	Bent
	C404	4	14	5'-5"	–
	C503	5	2	19'-6"	–

BENDING DIAGRAM

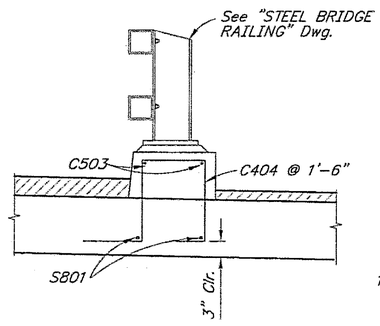


a – Epoxy coated reinforcing steel.
b – Length does not include splices.



SIDEWALK DETAIL

12 6 0 1 2 3
In. Feet



RAIL DETAIL

12 6 0 1 2 3
In. Feet

NOTES:

1. Taper asphalt overlay over Girder E and Approach Slab to match roadway Typical Section.
2. Field adjust S502 to miss Utility Blockouts.
3. Cap all unused utilities.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx	
DRAWN BY: Sam Sollie	CHECKED: Larry Owen	
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH
Larry M. Owen
No. PE 10656
12/2/05
REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

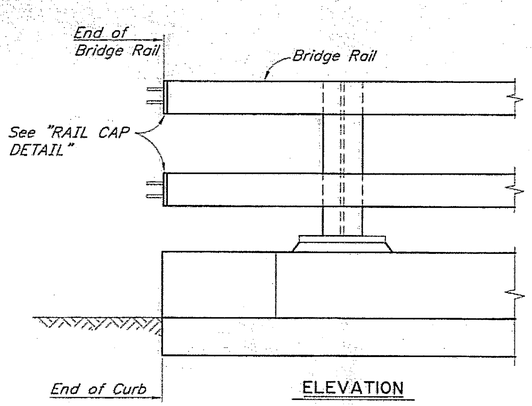
APPROACH SLAB

BRIDGE NO. 865

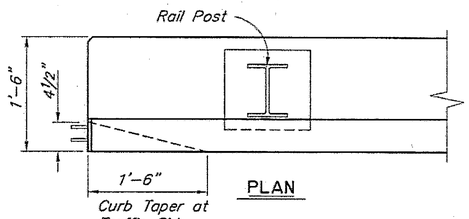
DWG. NO. 11

P:\865\865.dwg, 12/20/2005 9:36:17 AM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N17	120

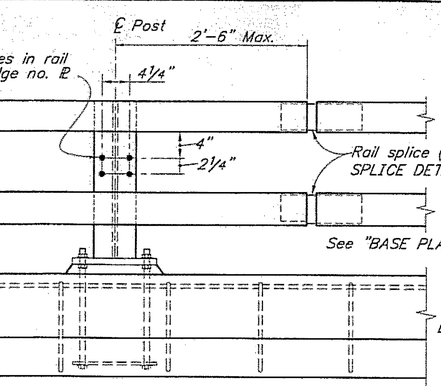


ELEVATION

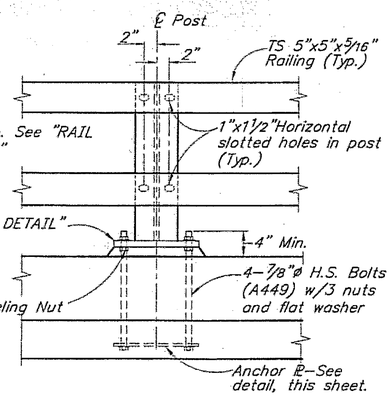


PLAN

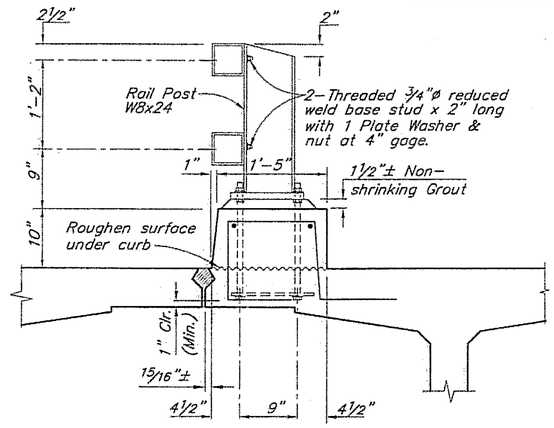
END POST DETAIL



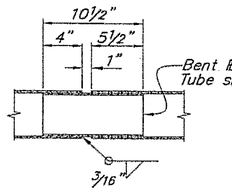
EXPANSION JOINT



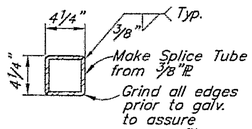
TYPICAL POST ELEVATION



TYPICAL SECTION



RAIL SPLICE DETAIL



SPLICE TUBE

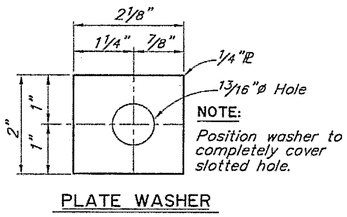
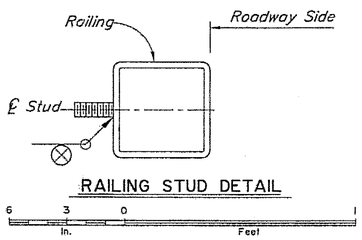
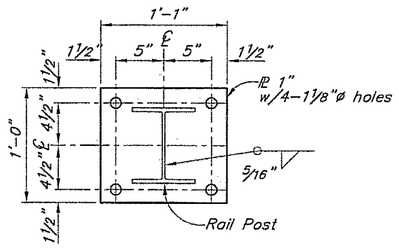


PLATE WASHER

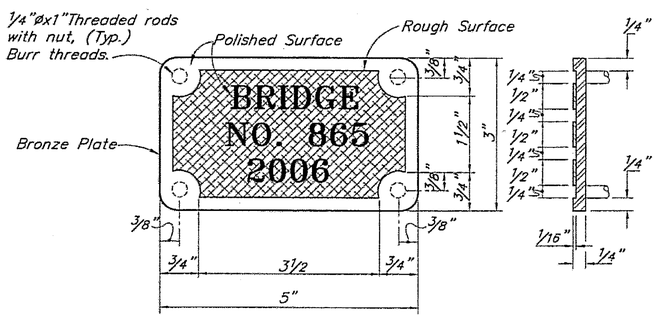
No Scale



RAILING STUD DETAIL

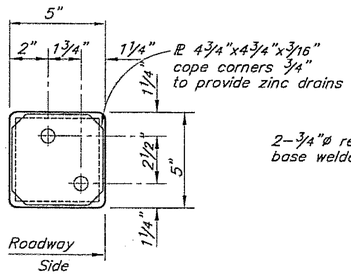


BASE PLATE DETAIL

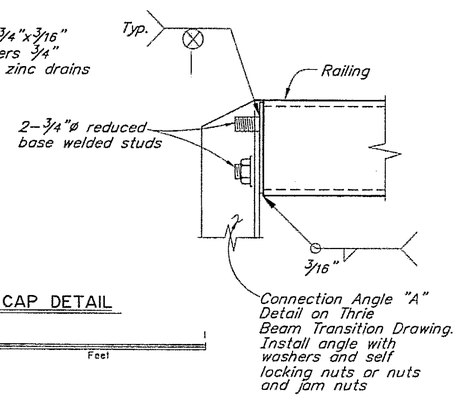


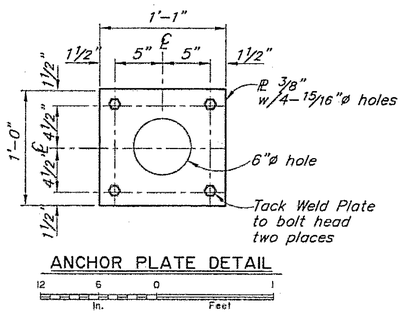
BRONZE BRIDGE NO. PLATE

No Scale



RAIL CAP DETAIL





ANCHOR PLATE DETAIL

NOTES

1. Locate bridge number plates on right hand side of approaching traffic near each end as shown (1 total).
2. Furnish bridge number plates. Use bronze that conforms to A.S.T.M. B98-90, Alloy "A" or "B". Use "Century" type style lettering. Use studs and nuts that conform to UNS C65100 or C65500. Braze ¼"ø threaded rod to back of plate with nut - 4 required. Use locking nuts or lock washers on all machine bolts.
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 4 posts minimum.
4. Use grout with a minimum 24 hour f'c of 3000 psi.
5. See "TYPICAL SECTION" Dwg. for rail post spacing.
6. See Std. Dwg. G31.00 for Thrie Beam Transition.
7. Install rail posts plumb.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx
DRAWN BY: Sam Sollie	CHECKED: Larry Owen
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Larry M. Owen — No. CE 10666 — 12/21/05 — REGISTERED PROFESSIONAL ENGINEER

INDIAN RIVER BRIDGE

SAWMILL CREEK ROAD

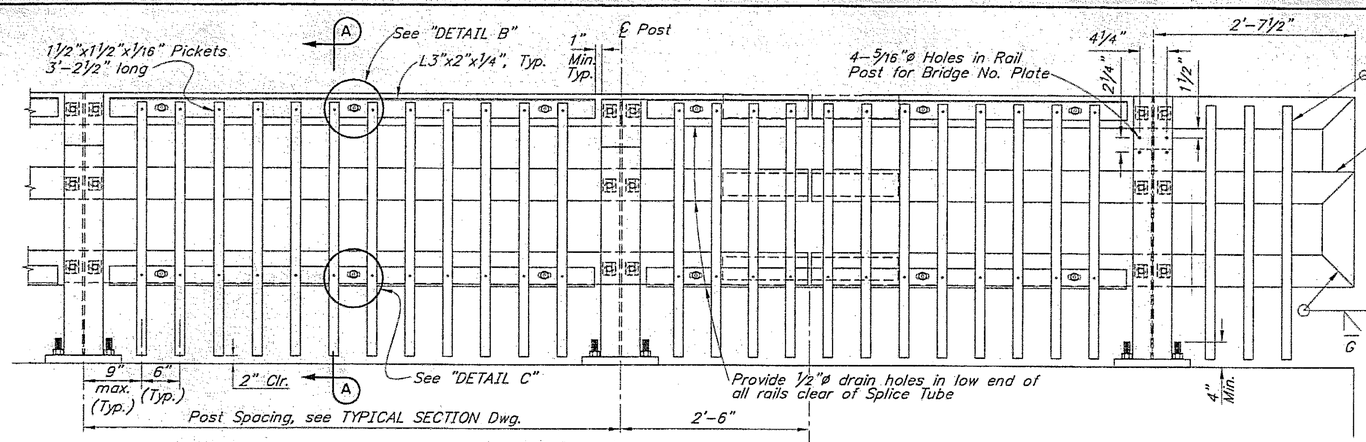
STEEL BRIDGE RAILING

BRIDGE NO. 865

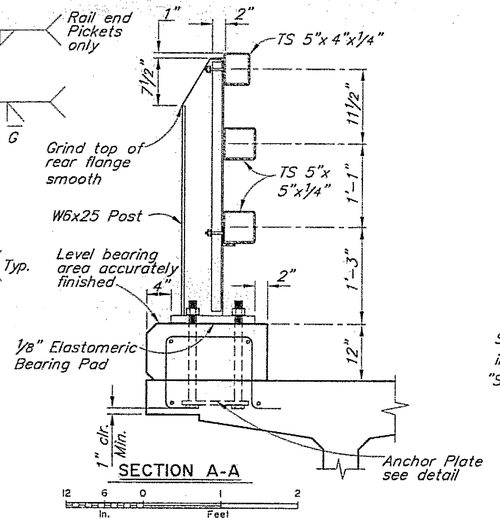
DWG. NO. 12

P:\865\865.dwg, 12/20/2005 9:36:25 AM

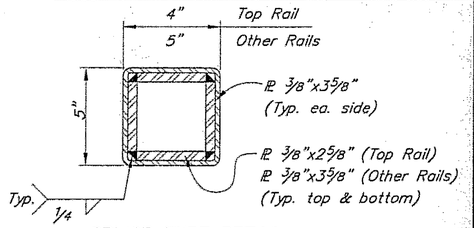
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68926	2006	N18	120



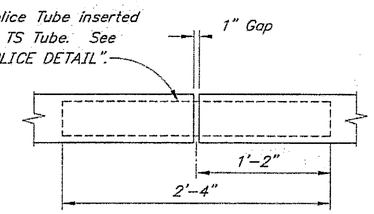
PEDESTRIAN RAILING ELEVATION



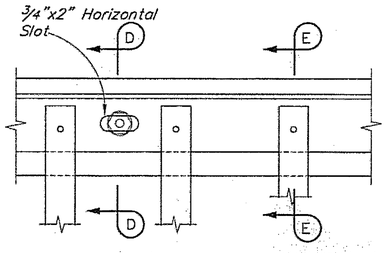
SECTION A-A



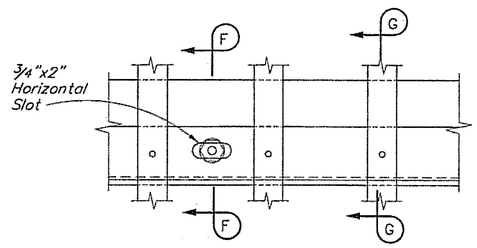
SPLICE TUBE DETAIL



SPLICE TUBE

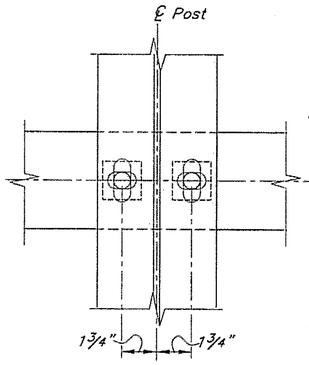


DETAIL B

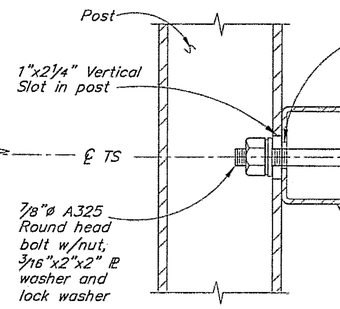


DETAIL C

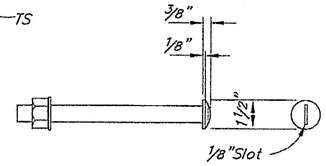
TYICAL PICKET TO RAIL DETAILS



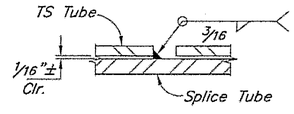
SECTION THRU POST WEB



SECTION THRU RAIL



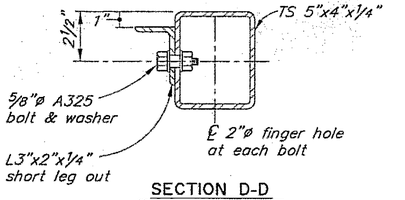
A325 ROUND HEAD BOLT



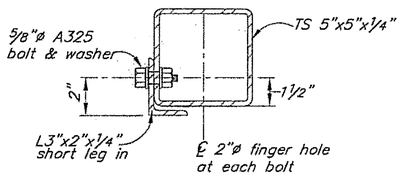
SPLICE DETAIL

No Scale

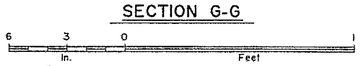
TYPICAL RAIL TO POST CONNECTIONS

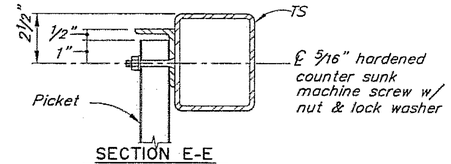


SECTION D-D

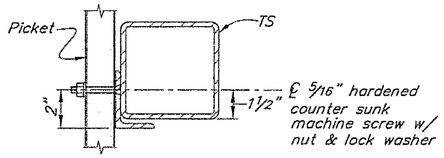


SECTION G-G

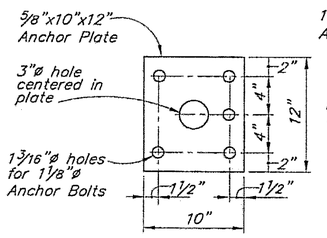




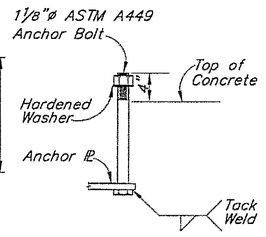
SECTION E-E



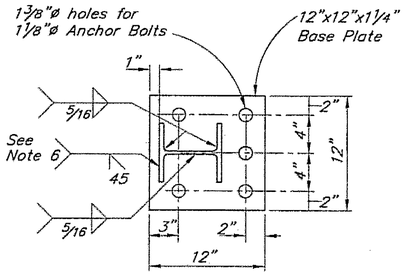
SECTION F-F



ANCHOR PLATE



ANCHOR BOLTS



BASE PLATE

RAILING NOTES

1. Locate bridge number plates on right hand side of approaching traffic near each end as shown (2 total).
2. Rail posts and base plates shall conform to the requirements of AASHTO M270/M270M Grade 50. Hollow railing structural tubing shall conform to the requirements of ASTM A500 with a certified Fy=50 ksi min. Picket carrier angles, anchor plates and splice tube plates shall conform to the requirements of AASHTO M270/M270M Grade 36. Picket tubing shall conform to ASTM A513 with Fy=36 ksi min. or A500, Grade B.
3. Set anchor bolts with templates. Tighten the nut securing the post base plate to the concrete to a snug fit and give nut an additional ⅛ turn.
4. Post flange weld does not require magnetic particle testing. Back-gouge on back side except at web. Weld is the same on both sides.
5. Provide railing expansion joints at 50'-0" maximum intervals. Provide a minimum of 4 rail posts between railing expansion joints. Railing expansion joints are required in rail panels that span bridge expansion joints.
6. See "TYPICAL SECTION" dwg. for rail post spacing.
7. Install rail posts plumb.

DESIGNED BY: Larry Owen	CHECKED: Elmer Marx	
DRAWN BY: Sam Sollie	CHECKED: Larry Owen	
QUANTITIES BY: Larry Owen	CHECKED: Elmer Marx	

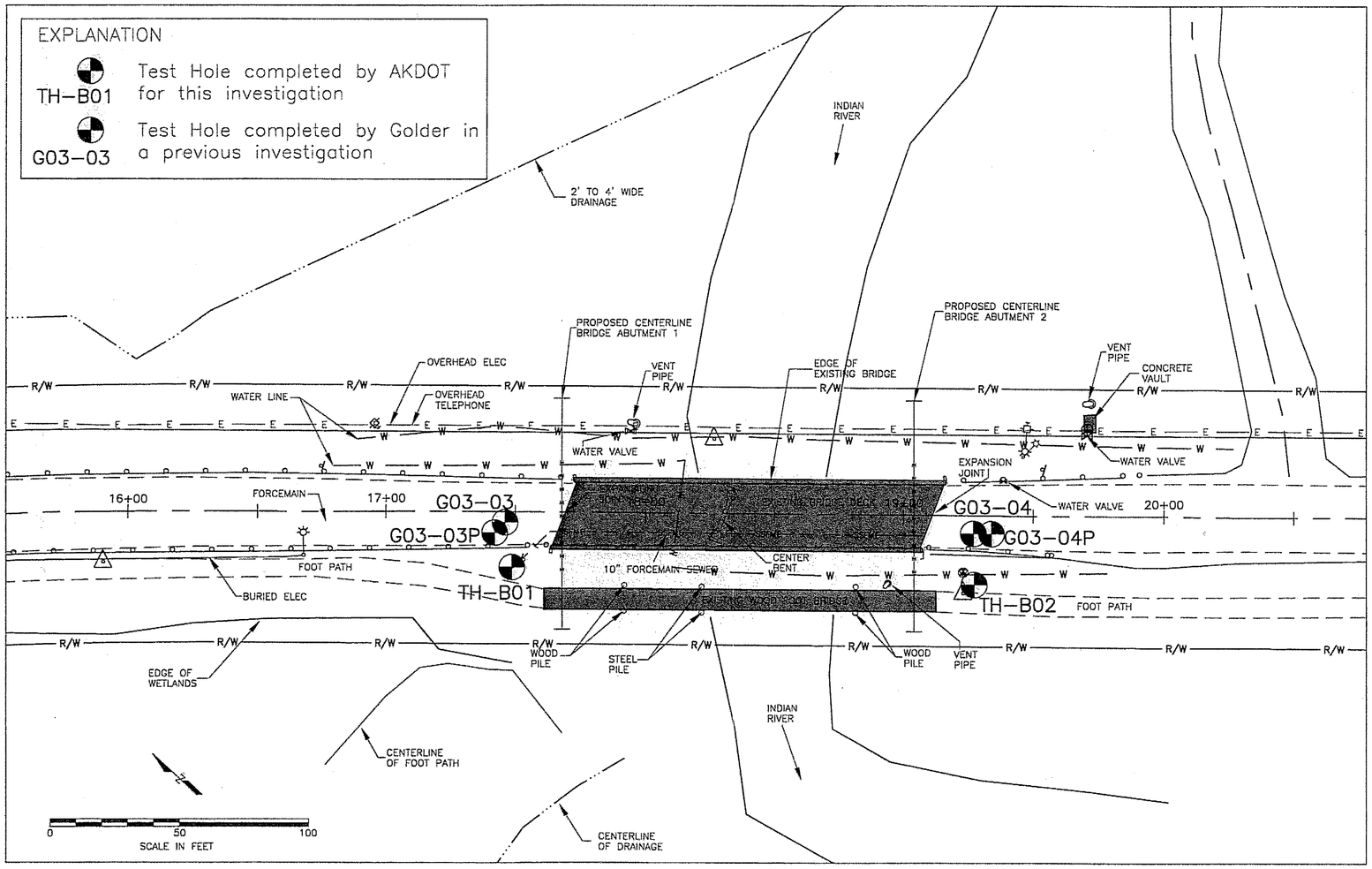
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Larry M. Owen No. CE 10666 — REGISTERED PROFESSIONAL ENGINEER — 12/20/05

INDIAN RIVER BRIDGE
SAWMILL CREEK ROAD
PEDESTRIAN RAILING

BRIDGE NO. 865
DWG. NO. 13

P:\865\865.dwg, 12/20/2005 9:36:36 AM



NOTES:
GEOTECHNICAL REPORT PREPARED FOR THE INDIAN RIVER BRIDGE WAS PREPARED BY ADOT&PF. A COPY OF THIS REPORT IS INCLUDED IN THE BID DOCUMENTS.

PATH:
I:\696201\INDIAN RIVER BRIDGE\N19.dwg
Thu, 22/Dec/05 03:02PM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
TEST HOLE LOCATION MAP

PREPARED BY: USKH INC.

DESIGNED BY: BB

STATE OF ALASKA
49 TH
BRUCE BRUNETTE
CE-9707
12-22-05
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: BB

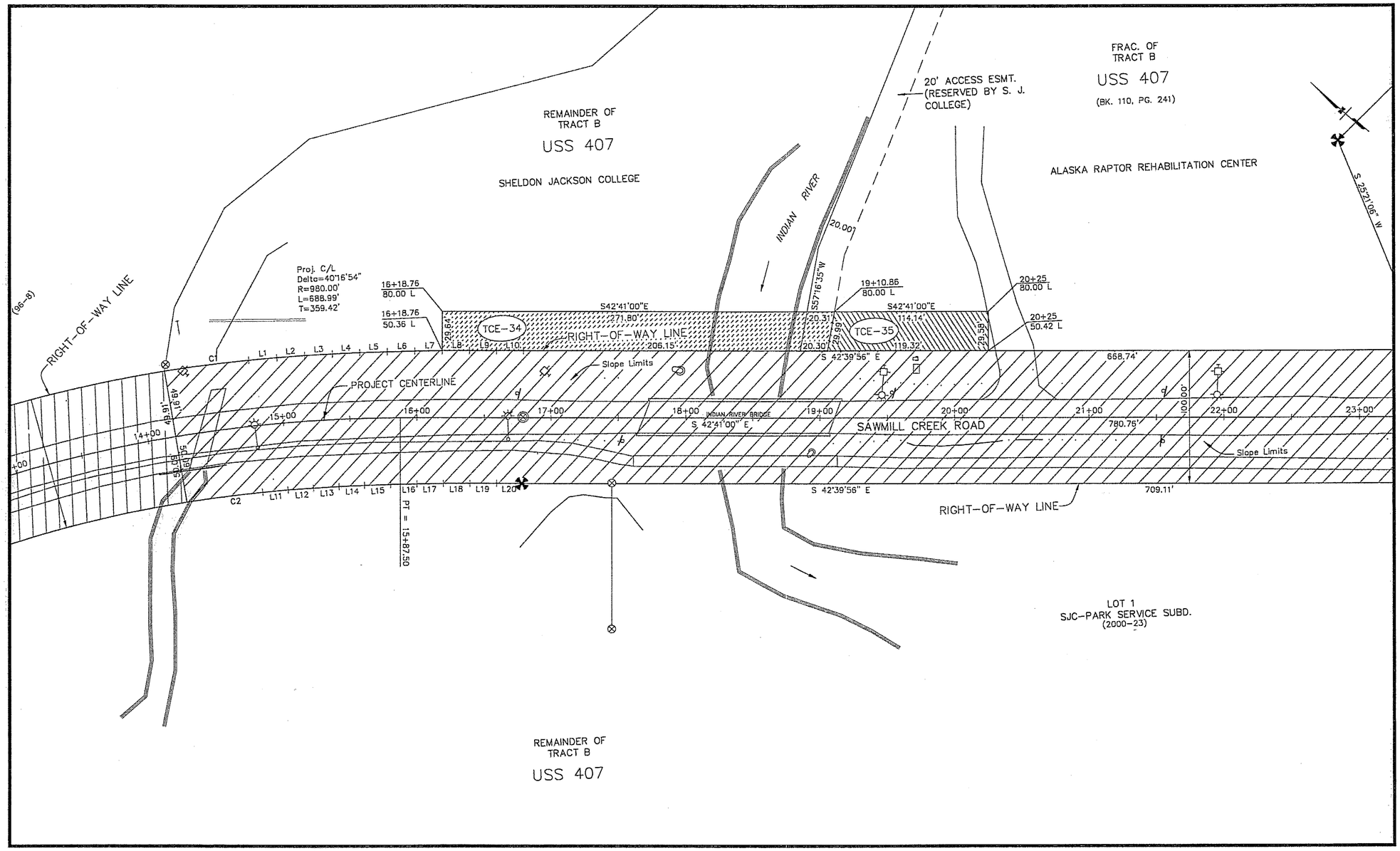
DRAWN BY: BB, WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE TEST HOLE LOCATION MAP

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N19	120

INDIAN RIVER BRIDGE
TEMPORARY CROSSING



DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
I:\696201\INDIAN RIVER BRIDGE\N20.dwg
Thu, 29/Dec/05 08:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

TEMPORARY CONSTRUCTION EASEMENT

PREPARED BY: USKH INC.

DESIGNED BY: JP

STATE OF ALASKA
49 TH
Robert Murphy
No. L-7331
REGISTERED PROFESSIONAL LAND SURVEYOR

CHECKED BY: RM

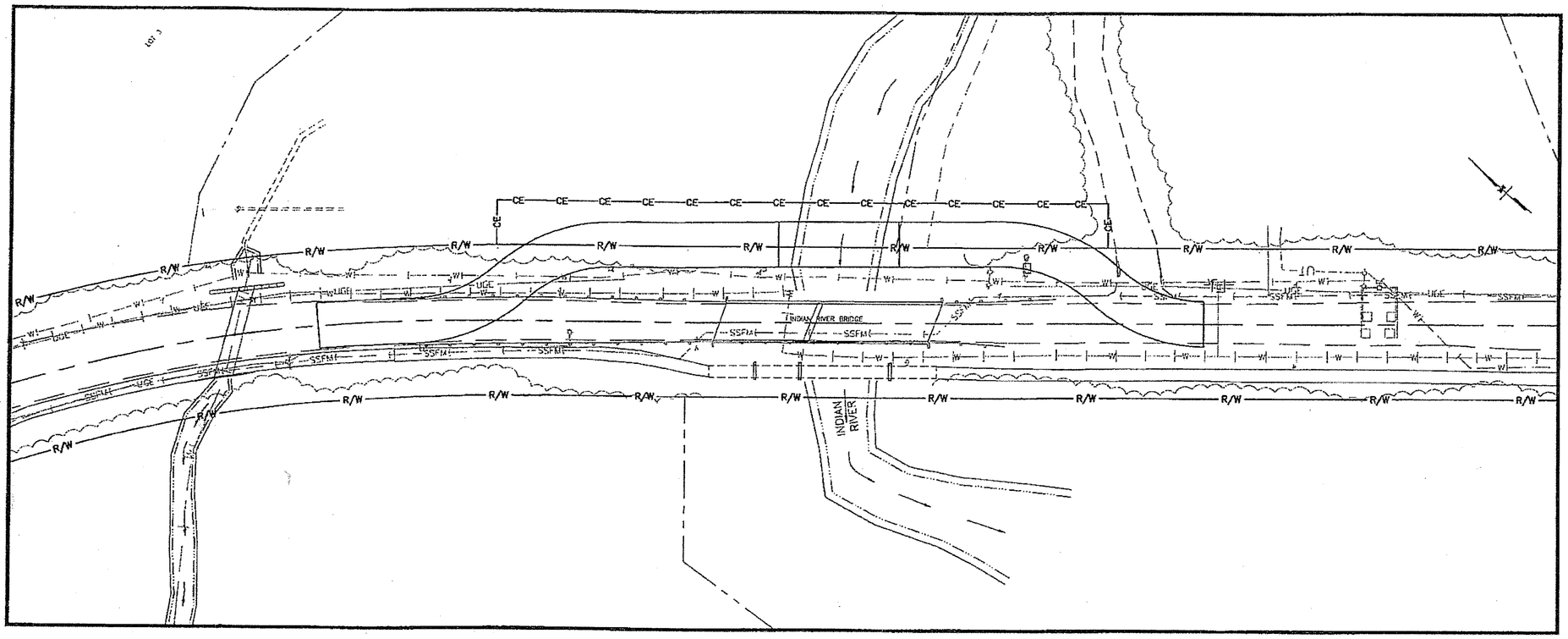
DRAWN BY: JP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

TEMPORARY CONSTRUCTION EASEMENT

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N20	120

INDIAN RIVER BRIDGE
TEMPORARY CROSSING



TEMPORARY CROSSING NOTES:

1. THE TEMPORARY CROSSING PAY ITEM 643 (29), INCLUDES ALL WORK FOR THE TEMPORARY DETOUR ROAD, AND TEMPORARY BRIDGE.
2. THE CONTRACTOR SHALL DESIGN THE TEMPORARY DETOUR ROAD IN ACCORDANCE WITH THE AASHTO'S 2001 EDITION OF THE "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS".
3. THE TEMPORARY BRIDGE SHALL MEET THE REQUIREMENTS OF SECTION 643-3.04.
4. THE DESIGN SPEED SHALL BE 20 MPH.
5. THE DESIGN VEHICLE SHALL BE A LARGE SCHOOL BUS (S-BUS-40).
6. THE DESIGN SPEED AND THE DESIGN VEHICLE SHALL BE USED TO DETERMINE THE MINIMUM AND MAXIMUM GRADE, CURVE RADIUS, CROSS SLOPE, SIDE SLOPE, ETC. FOR A RURAL TWO-LANE ROAD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. THE TEMPORARY CROSSING SHALL HAVE A 20 FEET MINIMUM ROADWAY WIDTH.
8. THE TEMPORARY DETOUR ROAD SHALL BE SURFACED WITH 4" OF AGGREGATE BASE COURSE, GRADING D-1 THAT MEETS THE SPECIFICATIONS OF SECTION 301. THE TEMPORARY BRIDGE DOES NOT NEED TO BE PAVED.
9. THE TEMPORARY BRIDGE SHALL BE REMOVED BY JUNE 15, 2007.
10. THE ENTIRE AREA DISTURBED BY THE TEMPORARY CROSSING PAYMENT ITEM SHALL BE RESTORED TO ITS PRE-EXISTING CONDITION PER THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL PLANT WILLOW CUTTINGS PER PLAN SHEET P4 BEFORE FINAL PAYMENT OF THIS PAY ITEM.
11. THE TEMPORARY DETOUR ROAD SHALL BE DESIGNED AND CONSTRUCTED SUCH THAT IT IS SAFELY BELOW THE OVERHEAD POWER AND TELEPHONE LINES LOCATED UPSTREAM OF THE EXISTING INDIAN RIVER BRIDGE.

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
E:\6962011\INDIAN RIVER BRIDGE\N21.dwg
Wed, 18/Jan/06 10:28AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER 1

ATTACHMENT NUMBER 7

RECORD OF REVISIONS

No.	DATE	DESCRIPTION
1	1/17/06	ADDENDUM #1

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
TEMPORARY CROSSING

PREPARED BY: USKH INC.

DESIGNED BY: FJS

STATE OF ALASKA
49TH
Nathan Leigh
NATHAN D. LEIGH
CE-8356
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

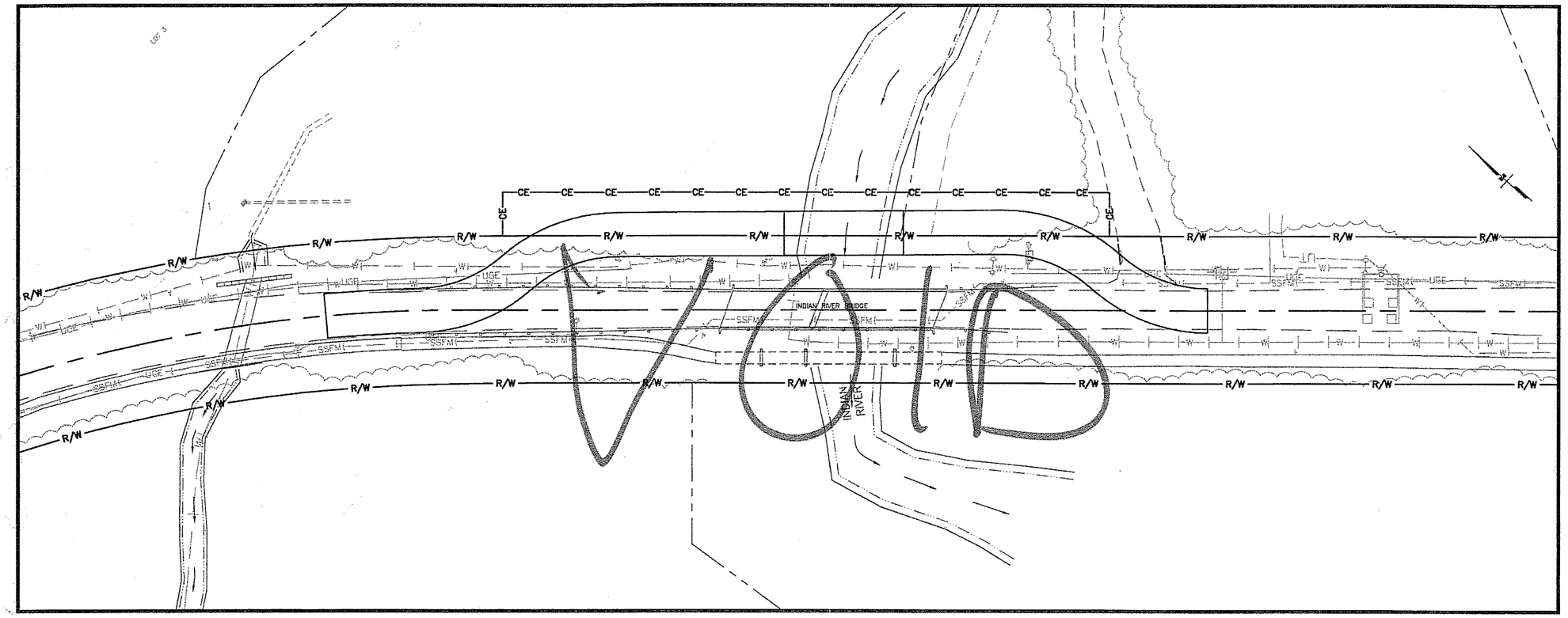
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE TEMPORARY CROSSING

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N21	120

INDIAN RIVER BRIDGE
TEMPORARY CROSSING



TEMPORARY CROSSING NOTES:

1. THE TEMPORARY CROSSING PAY ITEM 643 (29), INCLUDES THE TEMPORARY DETOUR ROAD LEADING UP TO THE TEMPORARY BRIDGE AND THE TEMPORARY BRIDGE.
2. THE CONTRACTOR SHALL DESIGN THE TEMPORARY DETOUR ROAD IN ACCORDANCE WITH THE AASHTO'S 2001 EDITION OF THE "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS".
3. THE TEMPORARY BRIDGE SHALL MEET THE REQUIREMENTS OF SECTION 643-3.04.
4. THE DESIGN SPEED SHALL BE 20 MPH.
5. THE DESIGN VEHICLE SHALL BE A LARGE SCHOOL BUS (S-BUS-40).
6. THE DESIGN SPEED AND THE DESIGN VEHICLE SHALL BE USED TO DETERMINE THE MINIMUM AND MAXIMUM GRADE, CURVE RADIUS, CROSS SLOPE, SIDE SLOPE, ETC. FOR A RURAL TWO-LANE ROAD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. THE TEMPORARY CROSSING SHALL HAVE A 20 FEET MINIMUM ROADWAY WIDTH.
8. THE TEMPORARY DETOUR ROAD SHALL BE SURFACED WITH 4" OF AGGREGATE BASE COURSE, GRADING D-1 THAT MEETS THE SPECIFICATIONS OF SECTION 301. THE TEMPORARY BRIDGE DOES NOT NEED TO BE PAVED.
9. THE TEMPORARY BRIDGE SHALL BE REMOVED BY JUNE 15, 2006.
10. THE ENTIRE AREA DISTURBED BY THE TEMPORARY CROSSING PAYMENT ITEM SHALL BE RESTORED TO ITS PRE-EXISTING CONDITION PER THE DIRECTION OF THE ENGINEER. THECONTRACTOR SHALL PLANT WILLOW CUTTINGS PER PLAN SHEET P4 BEFORE FINAL PAYMENT OF THIS PAY ITEM.

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
I:\696201\INDIAN RIVER BRIDGE\N21.dwg
Thu, 29/Dec/05 09:57AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
TEMPORARY CROSSING

PREPARED BY: USKH INC.

DESIGNED BY: FJS

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

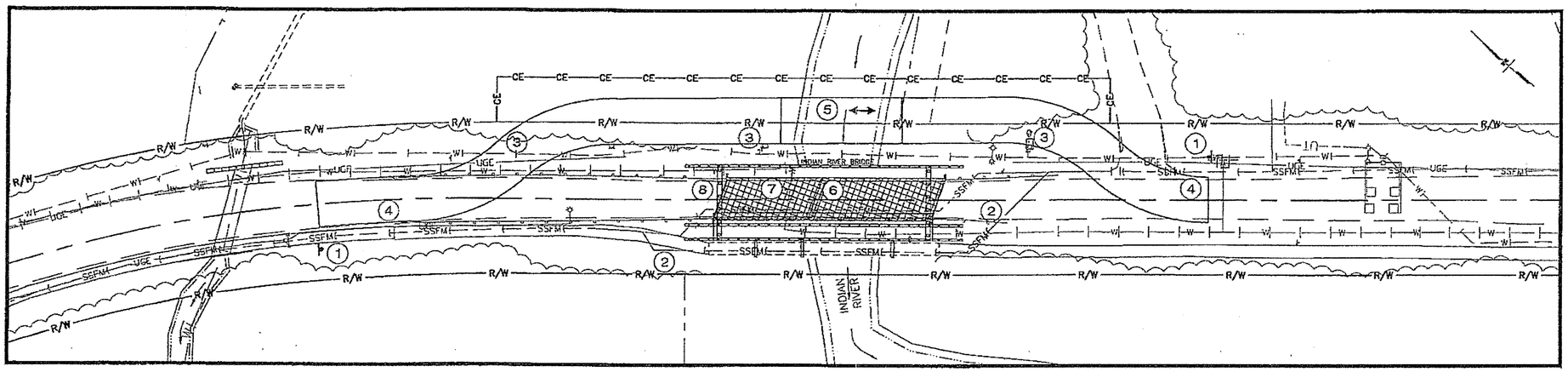
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE TEMPORARY CROSSING

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N21	120

INDIAN RIVER BRIDGE
CONSTRUCTION PHASING PLAN



PHASE I

⚠ (1) SET UP TRAFFIC CONTROL INCLUDING PEDESTRIAN DETOUR. (SEE PLAN SHEET N23.)

⚠ (2) CONSTRUCT AND ACTIVATE TEMPORARY SEWER LINE ON THE EXISTING PEDESTRIAN BRIDGE, PER PLAN SHEET NUB1.

⚠ (3) RELOCATE AND LOWER UNDERGROUND UTILITIES WHICH MAY INCLUDE:
24" WATERLINE, 14" WATERLINE, AIR RELIEF VALVE, BLOW OFF VALVE, AND ELECTRICAL CONDUITS.

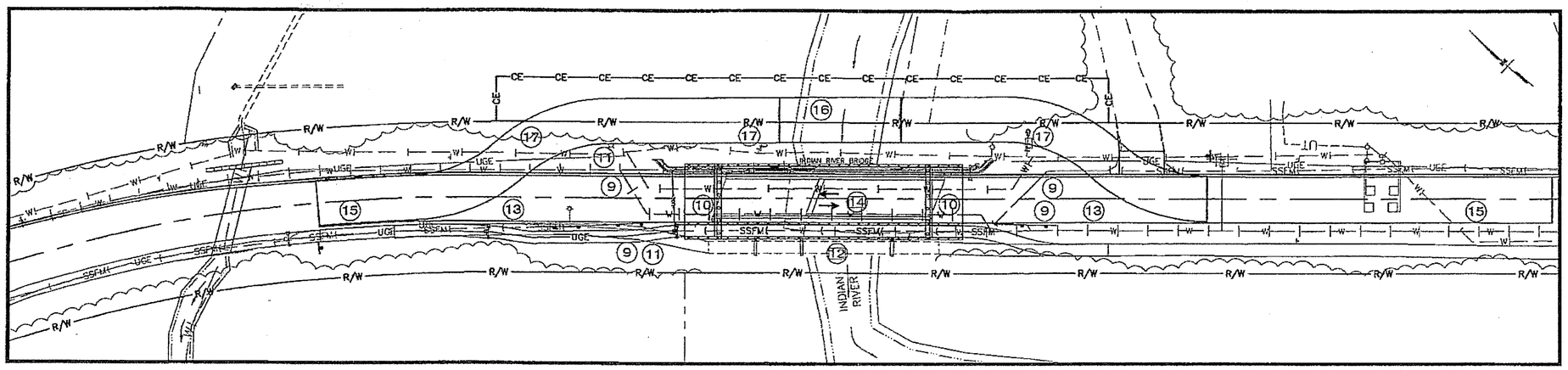
⚠ (4) CONSTRUCT TEMPORARY BRIDGE AND BYPASS ROAD.

⚠ (5) ROUTE TWO LANE – TWO WAY TRAFFIC ONTO THE TEMPORARY BRIDGE AND BYPASS ROAD.

⚠ (6) REMOVE EXISTING BRIDGE INCLUDING APPROACH GUARDRAILS.

⚠ (7) REMOVE THE EXISTING WATER DISTRIBUTION LINE (14 INCH DIAMETER) BETWEEN STA 17+65 AND 19+08, BEFORE DRIVING BRIDGE PILES.

⚠ (8) CONSTRUCT NEW BRIDGE INCLUDING ABUTMENTS, DECK, BRIDGE RAIL, AND WING WALLS.



PHASE II

(9) CONSTRUCT PERMANENT WATER, SEWER, AND ELECTRICAL LINES.

(10) CONSTRUCT APPROACH SLABS, SIDEWALK, BIKE PATH, LIGHTING, AND RAILING.

(11) ACTIVATE NEW WATER AND SEWER LINES.

⚠ (12) REMOVE AND DISPOSE OF TEMPORARY UTILITIES. THE EXISTING PEDESTRIAN BRIDGE SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH SECTION 202 BY JUNE 15, 2006

(13) CONSTRUCT ROAD BASE UP TO BRIDGE APPROACH SLABS.

(14) ROUTE VEHICLE AND PEDESTRIAN TRAFFIC ONTO NEW BRIDGE.

(15) PLACE FINAL ASPHALT PAVING AND STRIPING.

(16) REMOVE AND DISPOSE OF TEMPORARY BRIDGE AND BYPASS ROAD.

(17) RELOCATE UTILITY BACK TO EXISTING LOCATION.

⚠ PHASE I & II NOTES:

1. THIS CONSTRUCTION PHASING PLAN IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION PHASING PLAN IN ACCORDANCE WITH SECTION 108 OF THE CONTRACT DOCUMENTS.

⚠ 2. THE GENERAL NOTES ON PLAN SHEET UG3 ALSO APPLY TO THIS PLAN SHEET.

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
I:\698201\INDIAN RIVER BRIDGE\N22.dwg
Wed, 18/Jan/06 10:30AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER 1

ATTACHMENT NUMBER 8

RECORD OF REVISIONS

No.	DATE	DESCRIPTION
⚠	1/17/06	ADDENDUM #1

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
CONSTRUCTION PHASING PLAN

PREPARED BY: USKH INC.

DESIGNED BY: FJS

STATE OF ALASKA
49TH
Nathan C. Lojo
CE-6356
ASSOCIATED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

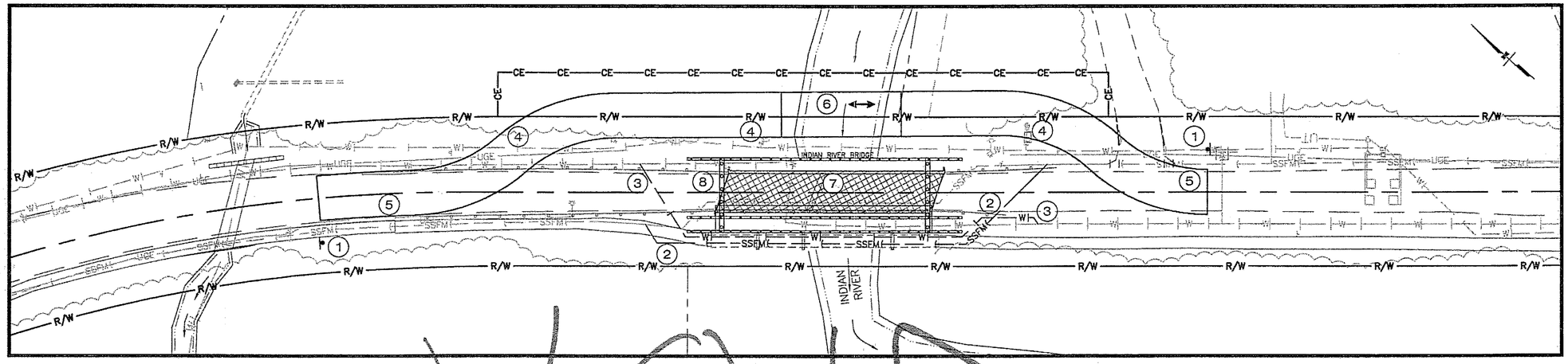
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

INDIAN RIVER BRIDGE CONSTRUCTION PHASING PLAN

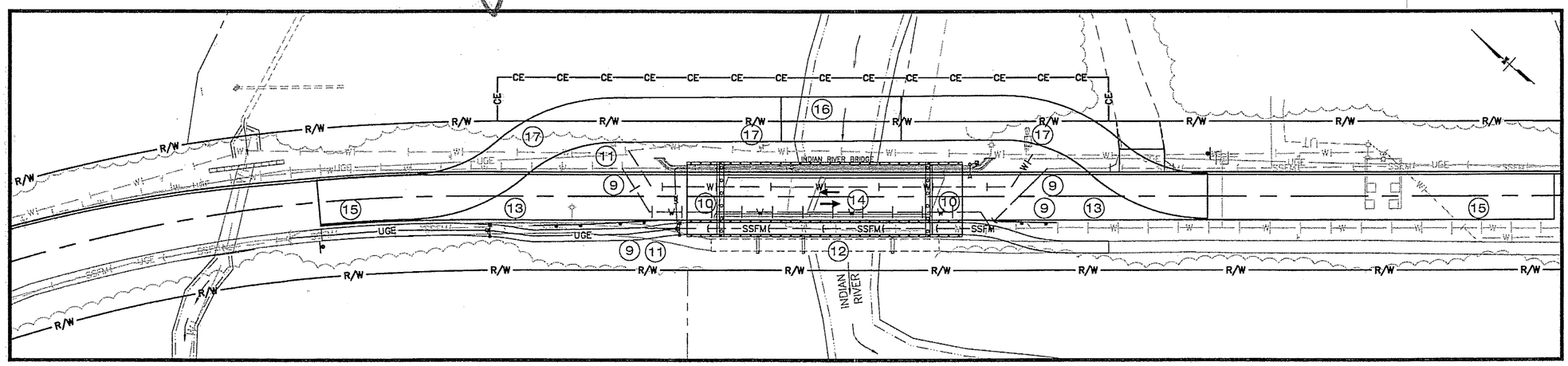
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N22	120

INDIAN RIVER BRIDGE
CONSTRUCTION PHASING PLAN



PHASE I

1. SET UP TRAFFIC CONTROL INCLUDING PEDESTRIAN DETOUR. (SEE SHEET N23.)
2. CONSTRUCT AND ACTIVATE TEMPORARY SEWER LINE ON THE EXISTING PEDESTRIAN BRIDGE.
3. CONSTRUCT AND ACTIVATE TEMPORARY WATER LINE ON THE EXISTING PEDESTRIAN BRIDGE.
4. RELOCATE UTILITY (TEMPORARY)
5. CONSTRUCT TEMPORARY BRIDGE AND BYPASS ROAD.
6. ROUTE TWO LANE – TWO WAY TRAFFIC ONTO THE TEMPORARY BRIDGE AND BYPASS ROAD.
7. REMOVE EXISTING BRIDGE INCLUDING APPROACH GUARDRAILS.
8. CONSTRUCT NEW BRIDGE INCLUDING ABUTMENTS, DECK, BRIDGE RAIL, AND WING WALLS.



PHASE II

9. CONSTRUCT PERMANENT WATER, SEWER, AND ELECTRICAL LINES.
10. CONSTRUCT APPROACH SLABS, SIDEWALK, BIKE PATH, LIGHTING, AND RAILING.
11. ACTIVATE NEW WATER AND SEWER LINES.
12. REMOVE AND DISPOSE OF PEDESTRIAN BRIDGE & TEMPORARY UTILITIES.
13. CONSTRUCT ROAD BASE UP TO BRIDGE APPROACH SLABS.
14. ROUTE VEHICLE AND PEDESTRIAN TRAFFIC ONTO NEW BRIDGE.
15. PLACE FINAL ASPHALT PAVING AND STRIPING.
16. REMOVE AND DISPOSE OF TEMPORARY BRIDGE AND BYPASS ROAD.
17. RELOCATE UTILITY BACK TO EXISTING LOCATION.

NOTE:
THIS CONSTRUCTION PHASING PLAN IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION PHASING PLAN IN ACCORDANCE WITH SECTION 108 OF THE CONTRACT DOCUMENTS.

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
I:\696201\INDIAN RIVER BRIDGE\N22.dwg
Thu, 29/Dec/05 08:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
CONSTRUCTION PHASING PLAN

PREPARED BY: USKH INC.
DESIGNED BY: FJS

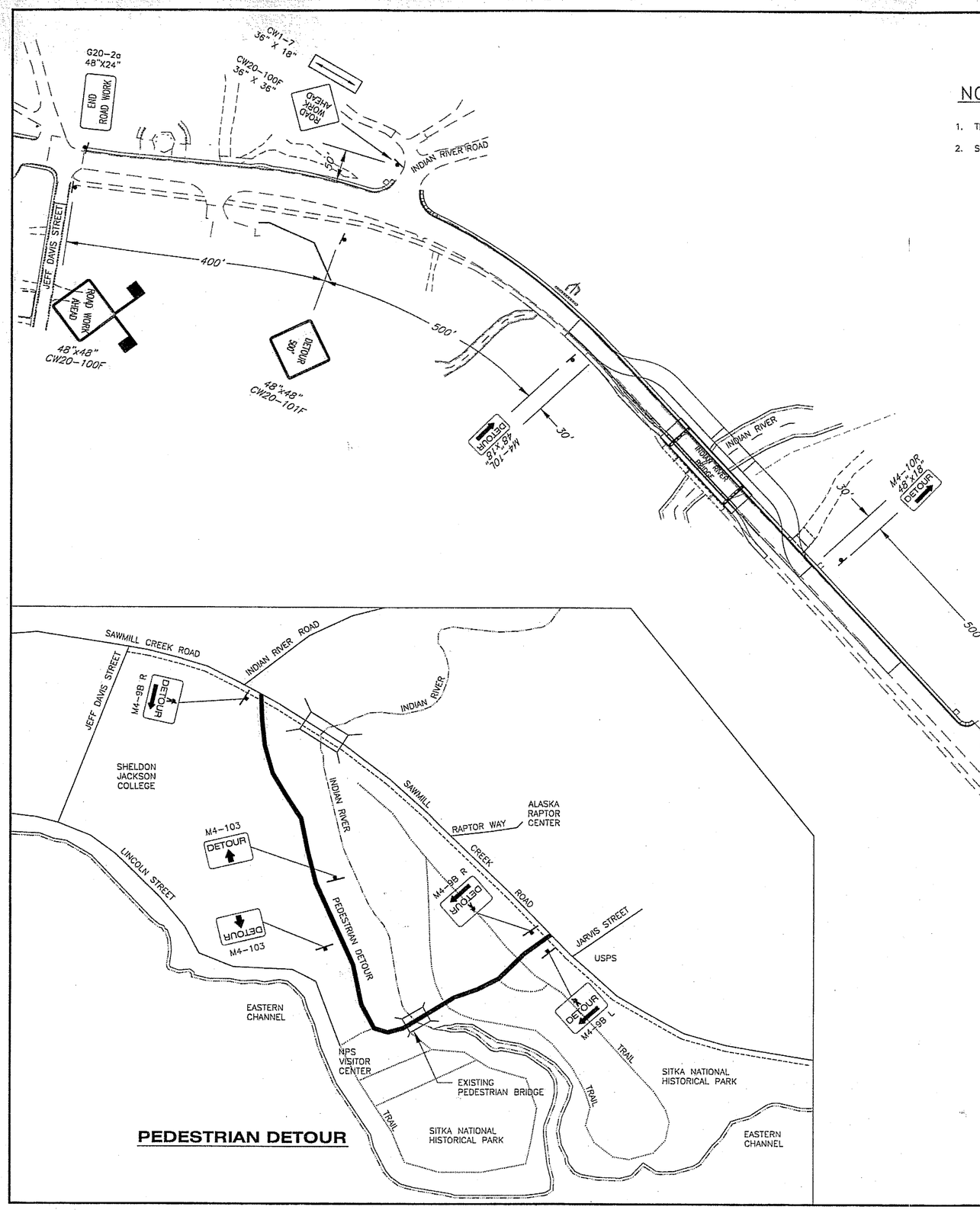
STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

INDIAN RIVER BRIDGE CONSTRUCTION PHASING PLAN

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N22	120



PEDESTRIAN DETOUR

NOTES

1. THE CONTRACTOR SHALL PROVIDE EMERGENCY VEHICLES WITH ACCESS THROUGH THE PROJECT AT ALL TIMES.
2. SEE SHEET K1 FOR LANE CLOSURE DETAILS.

PATH:
I:\696201\INDIAN RIVER BRIDGE\N23.dwg
Thu, 29/Dec/05 08:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
TRAFFIC CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

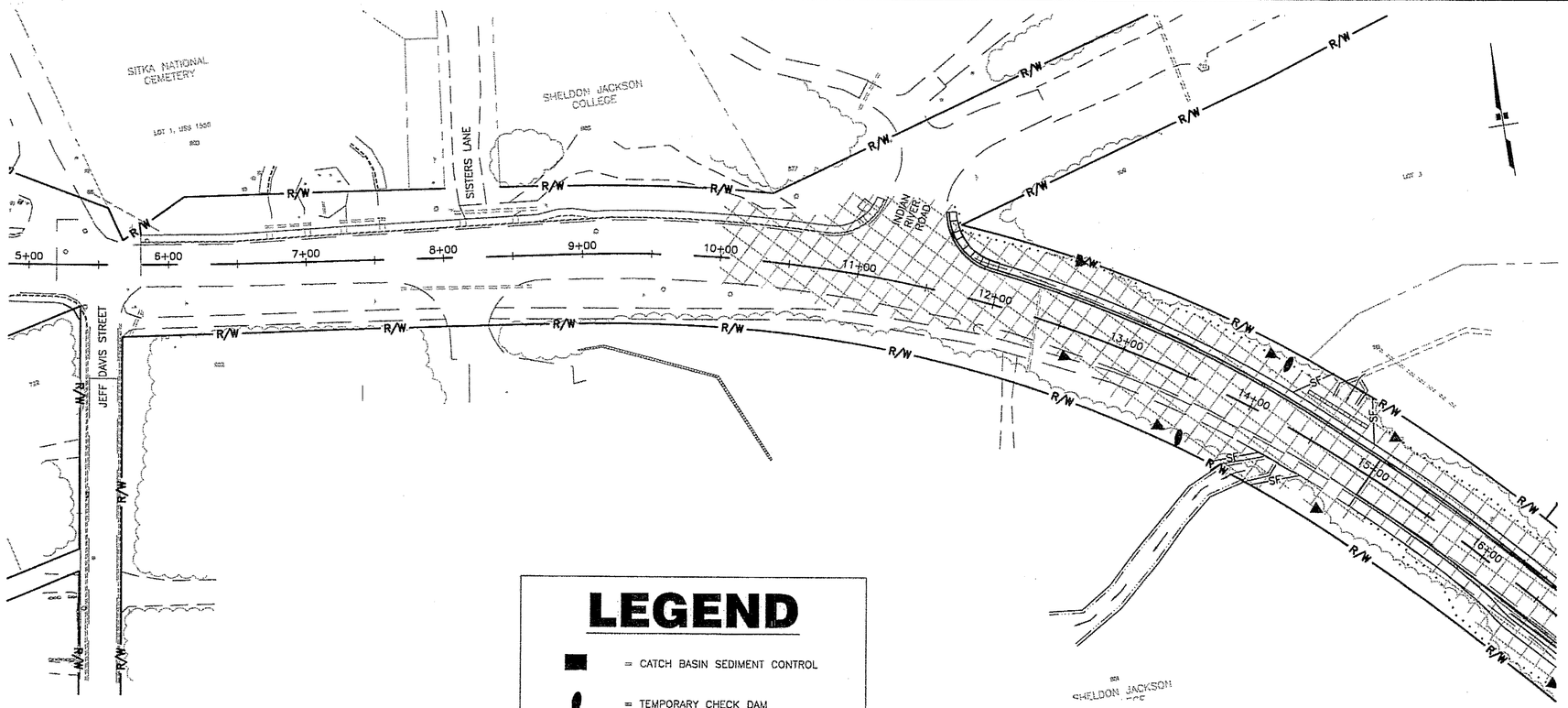
CHECKED BY: KM

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

INDIAN RIVER BRIDGE TRAFFIC CONTROL PLAN

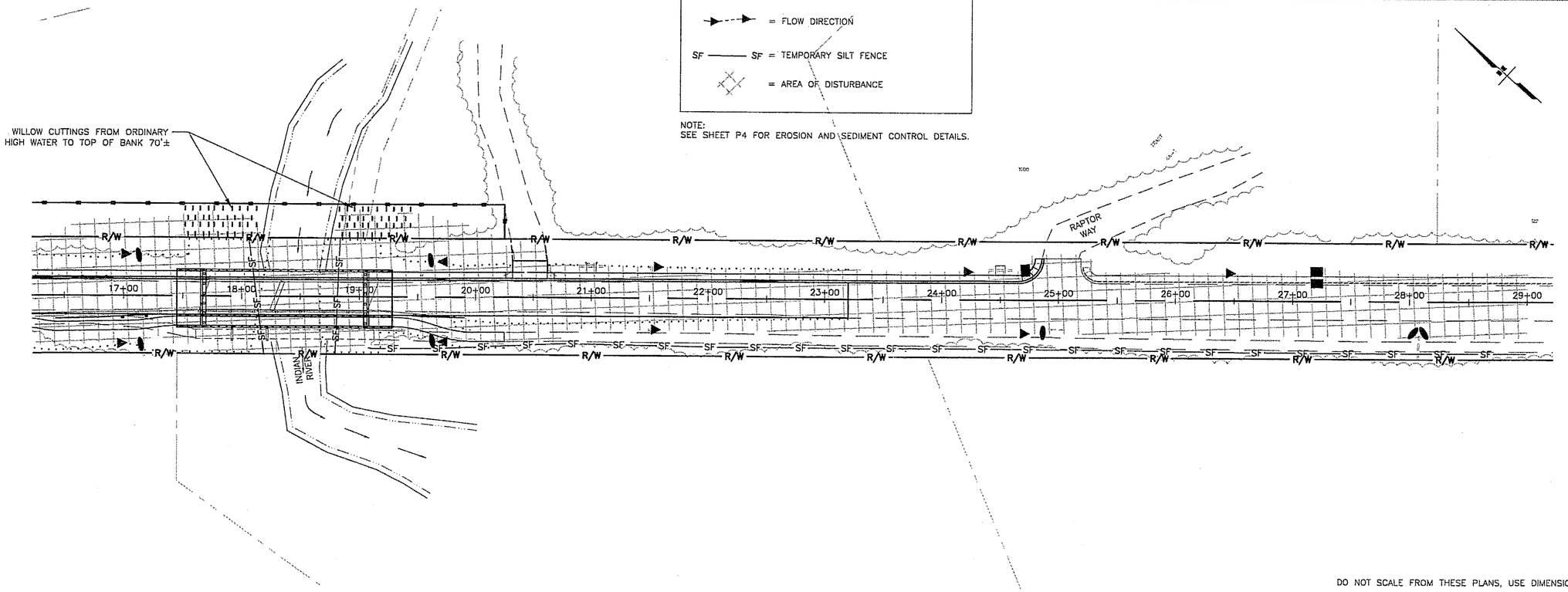
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N23	120



LEGEND

- = CATCH BASIN SEDIMENT CONTROL
- = TEMPORARY CHECK DAM
- = FLOW DIRECTION
- SF ——— SF = TEMPORARY SILT FENCE
- = AREA OF DISTURBANCE

NOTE:
SEE SHEET P4 FOR EROSION AND SEDIMENT CONTROL DETAILS.



DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

PATH:
I:\696201\INDIAN RIVER BRIDGE\N24.dwg
Thu, 29/Dec/05 10:15AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

EROSION & SEDIMENT CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49TH
Nathan Creagh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

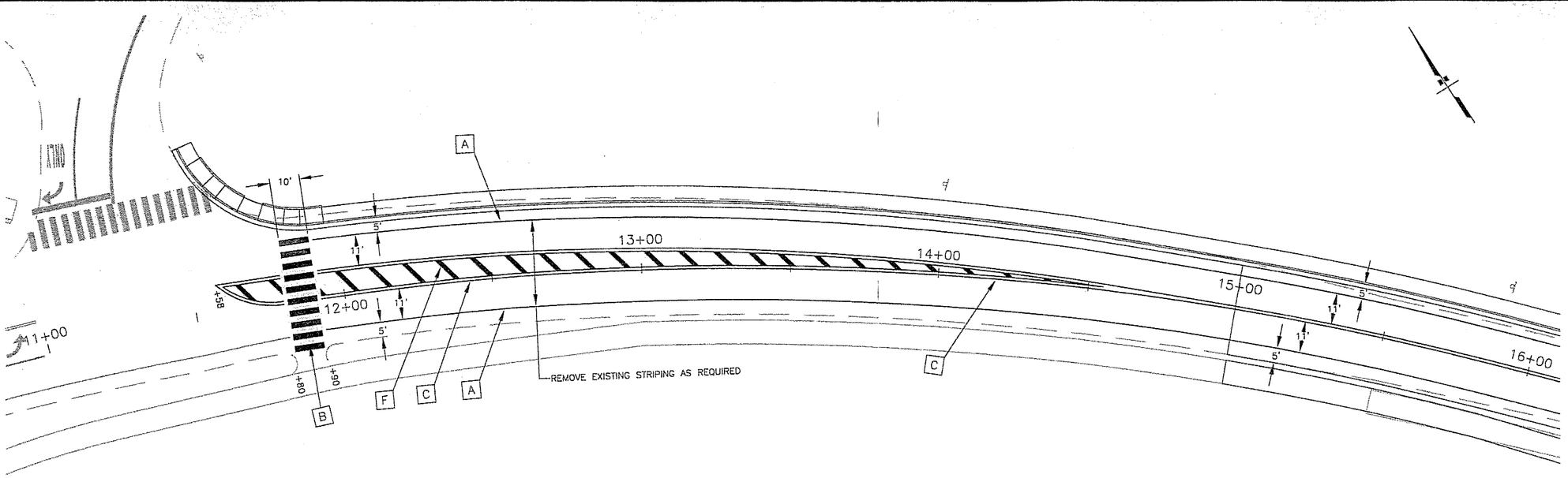
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

EROSION & SEDIMENT CONTROL PLAN STA. 10+00 TO STA. 29+00

PROJECT DESIGNATION NUMBER
68023/68926

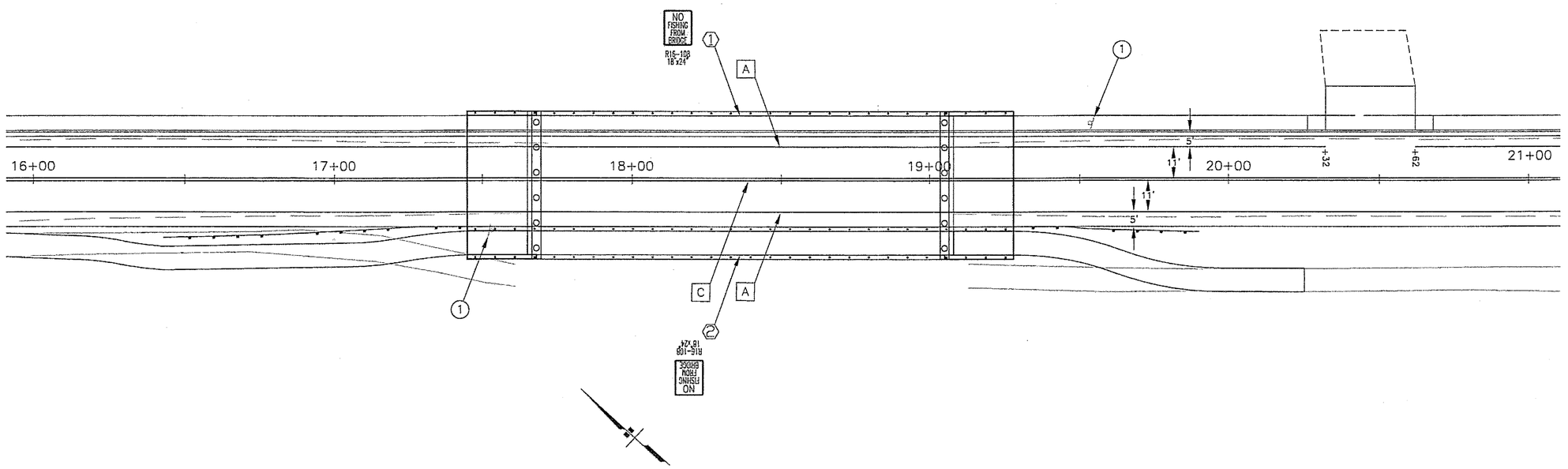
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N24	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12¼"	4" / 4" / 12¼"
F	SOLID YELLOW	18"	

(1) RELOCATE SIGN AS DIRECTED

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS



PATH:
I:\696201\INDIAN RIVER BRIDGE\N25.dwg
Thu, 29/Dec/05 08:25AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
SIGNING & STRIPING PLANS

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

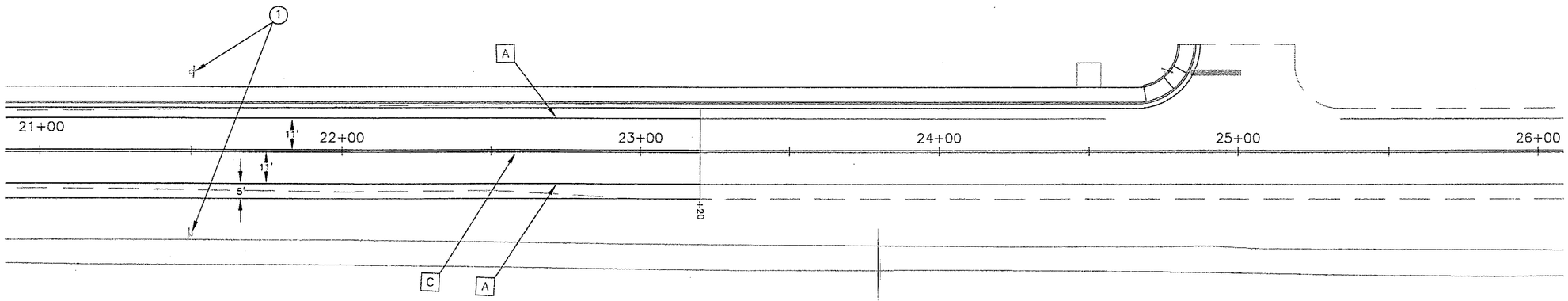
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

INDIAN RIVER BRIDGE SIGNING & STRIPING PLANS
STA. 11+00 TO STA. 21+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N25	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12¼"	4" / 4" / 12¼"
F	SOLID YELLOW	18"	

(1) RELOCATE SIGN AS DIRECTED

DO NOT SCALE FROM THESE PLANS, USE DIMENSIONS

615(1) STANDARD SIGN – SQUARE FOOT											
SIGN NO.	STATION	OFFSETS		CODE NO. ASDS	LEGEND	SIZE (INCHES)		AREA SQ. FT	SIGN FACES (SEE NOTE 1)	POST TYPE	REMARKS
		LT	RT			W	H				
1	18+36	X		R16-108	NO FISHING FROM BRIDGE	18	24	3.00	SB	2½" PST	ATTACH TO MIDPOINT OF HAND RAILING
2	18+36		X	R16-108	NO FISHING FROM BRIDGE	18	24	3.00	NB	2½" PST	ATTACH TO MIDPOINT OF HAND RAILING
						TOTAL		6			

PATH:
I:\696201\INDIAN RIVER BRIDGE\N26.dwg
Thu, 29/Dec/05 08:26AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
SIGNING & STRIPING PLANS

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

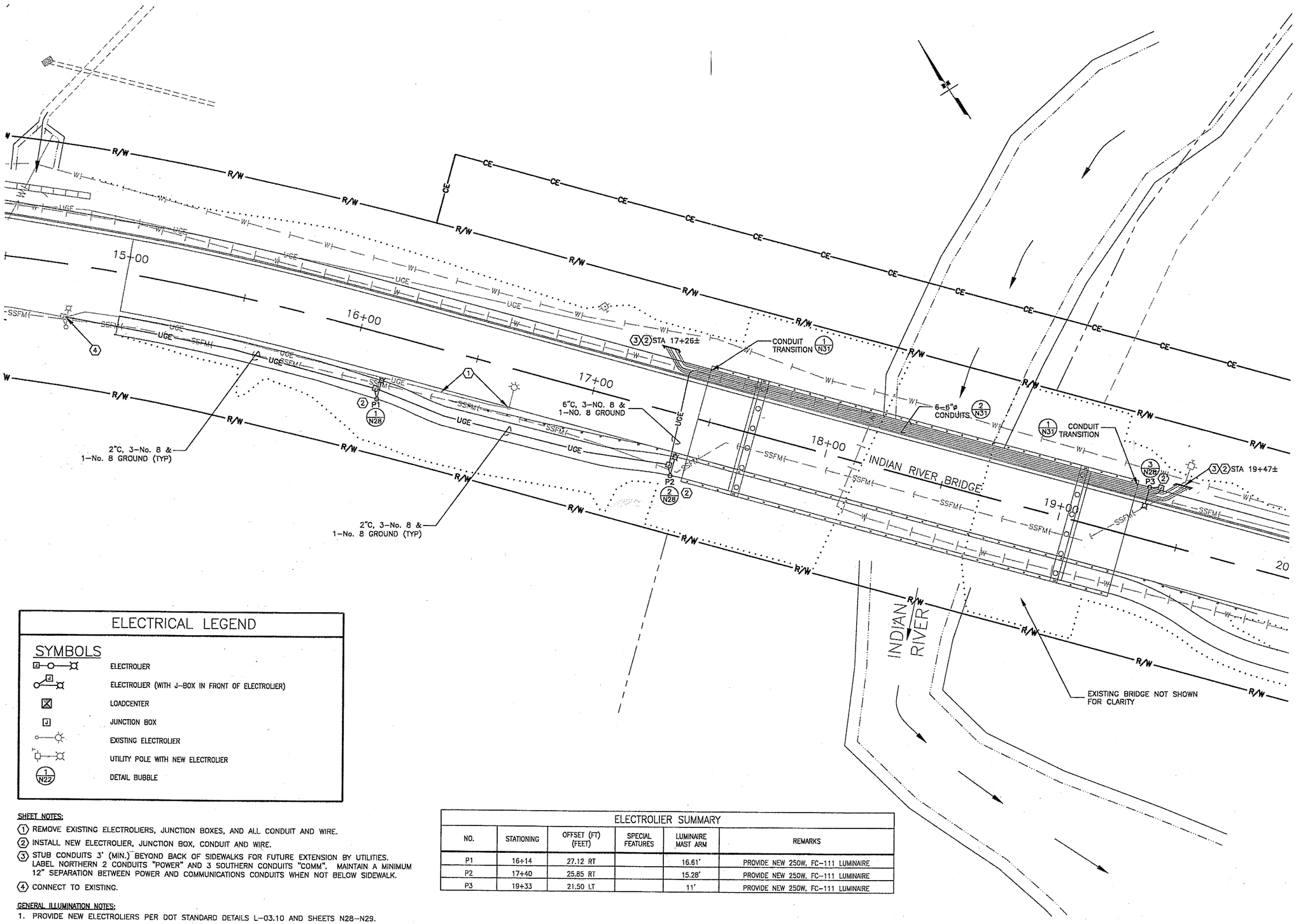
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

INDIAN RIVER BRIDGE SIGNING & STRIPING PLANS
STA. 21+00 TO STA. 23+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N26	120



ELECTRICAL LEGEND

SYMBOLS

- ELECTROLIER
- ELECTROLIER (WITH J-BOX IN FRONT OF ELECTROLIER)
- LOADCENTER
- JUNCTION BOX
- EXISTING ELECTROLIER
- UTILITY POLE WITH NEW ELECTROLIER
- DETAIL BUBBLE (1 / N22)

SHEET NOTES:

1. REMOVE EXISTING ELECTROLIERS, JUNCTION BOXES, AND ALL CONDUIT AND WIRE.
2. INSTALL NEW ELECTROLIER, JUNCTION BOX, CONDUIT AND WIRE.
3. STUB CONDUITS 3' (MIN.) BEYOND BACK OF SIDEWALKS FOR FUTURE EXTENSION BY UTILITIES. LABEL NORTHERN 2 CONDUITS "POWER" AND 3 SOUTHERN CONDUITS "COMM". MAINTAIN A MINIMUM 12" SEPARATION BETWEEN POWER AND COMMUNICATIONS CONDUITS WHEN NOT BELOW SIDEWALK.
4. CONNECT TO EXISTING.

GENERAL ILLUMINATION NOTES:

1. PROVIDE NEW ELECTROLIERS PER DOT STANDARD DETAILS L-03.10 AND SHEETS N28-N29.
2. EXISTING LIGHTING CIRCUIT IS SERVED FROM LOADCENTER AT SOUTHEAST CORNER OF INTERSECTION OF INDIAN RIVER AND SAWMILL CREEK ROADS. NEW TOTAL LOAD ON EXISTING LIGHTING CIRCUIT IS 10 AMPS AT 240 VOLTS.

ELECTROLIER SUMMARY

NO.	STATIONING	OFFSET (FT) (FEET)	SPECIAL FEATURES	LUMINAIRE MAST ARM	REMARKS
P1	16+14	27.12 RT		16.61'	PROVIDE NEW 250W, FC-111 LUMINAIRE
P2	17+40	25.85 RT		15.28'	PROVIDE NEW 250W, FC-111 LUMINAIRE
P3	19+33	21.50 LT		11'	PROVIDE NEW 250W, FC-111 LUMINAIRE

DO NOT SCALE FROM THESE PLANS, USE THE DIMENSIONS

PATH:
I:\696200\Drawings\E\IRB_Bound_Elec_122805
Wed, 28/Dec/05 11:31AM gpinckert
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE ILLUMINATION PLAN

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
GARY R. HABLE
EE-10243
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: NCL

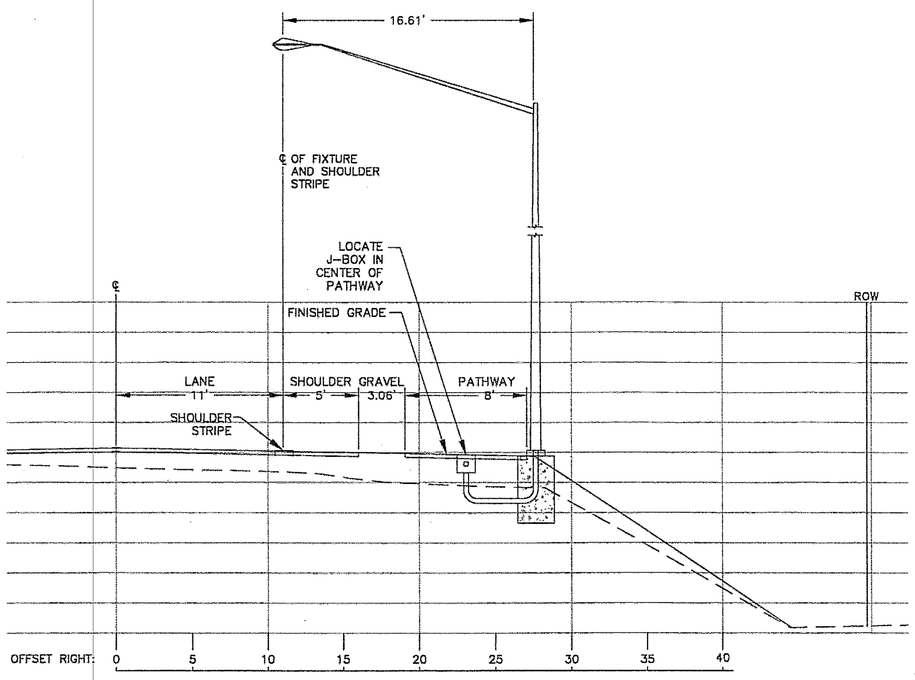
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

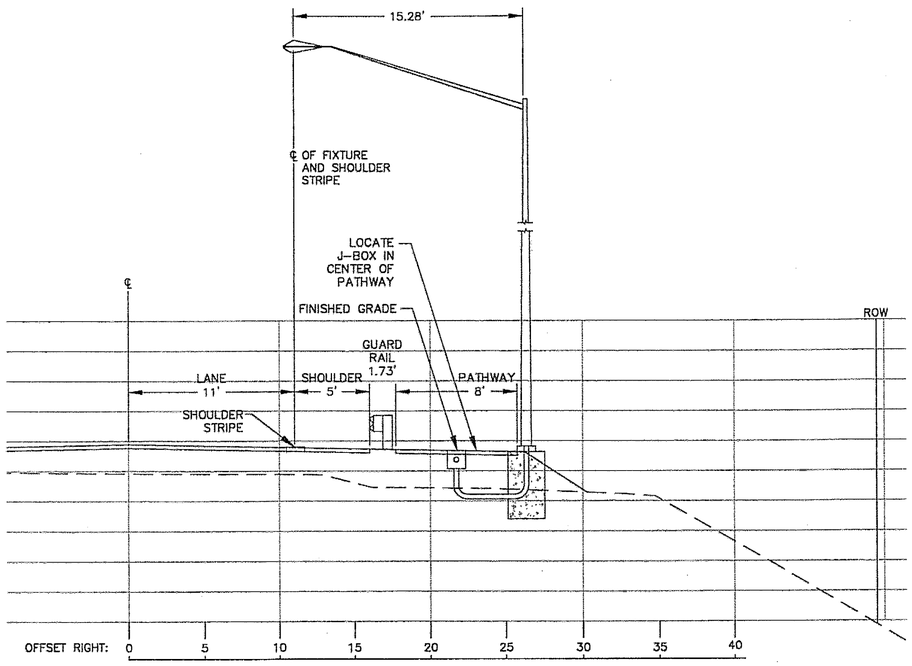
INDIAN RIVER BRIDGE ILLUMINATION PLAN

PROJECT DESIGNATION NUMBER
68023/68926

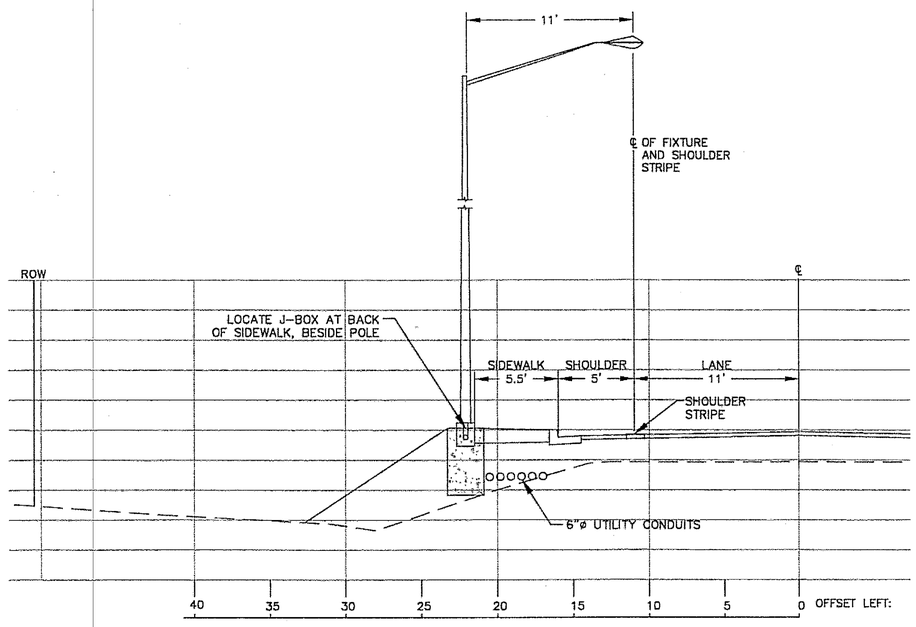
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N27	120



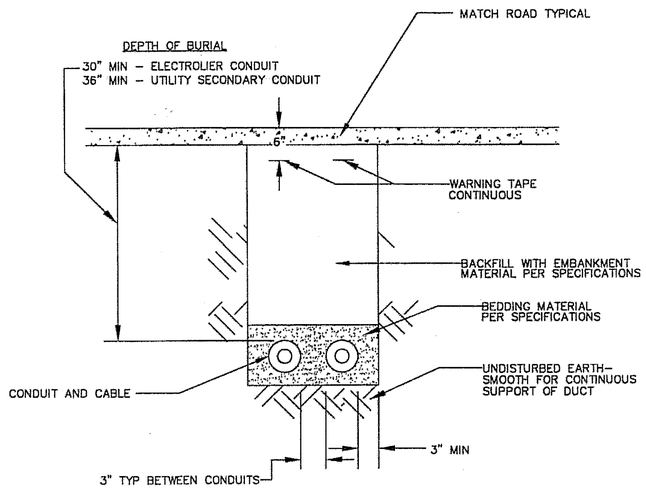
1 N28 **ELECTROLIER SECTION AND DETAIL - P1**



2 N28 **ELECTROLIER SECTION AND DETAIL - P2**



3 N28 **ELECTROLIER SECTION AND DETAIL - P3**



NOTES:

1. WIDTH OF TRENCH AND NUMBER OF CONDUITS PER TRENCH DETERMINED IN FIELD (2 SHOWN)

4 N28 **TRENCHING DETAIL** NOT TO SCALE

PATH:
I:\696200\Drawings\E\IRB_Bound_Elec_122805
Wed, 28/Dec/05 11:29AM gpinckert
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

INDIAN RIVER BRIDGE
ELECTRICAL CROSS SECTIONS

PREPARED BY: USKH INC.

DESIGNED BY:

STATE OF ALASKA
49TH
GARY R. HABLE
EE-10243
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY:

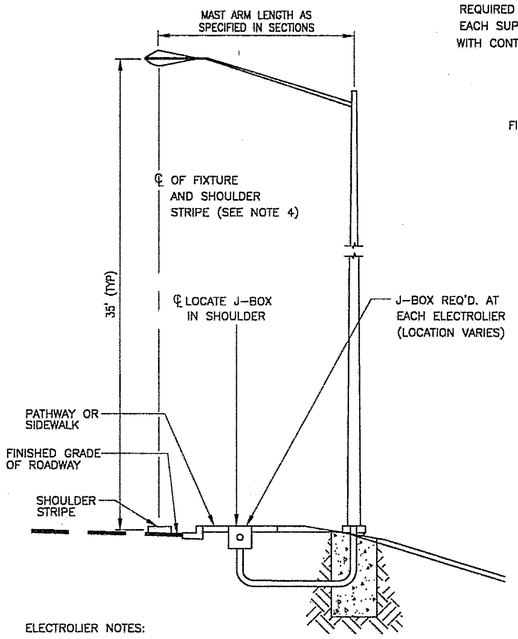
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

INDIAN RIVER BRIDGE ELECTRICAL CROSS SECTIONS

PROJECT DESIGNATION NUMBER
68023/68926

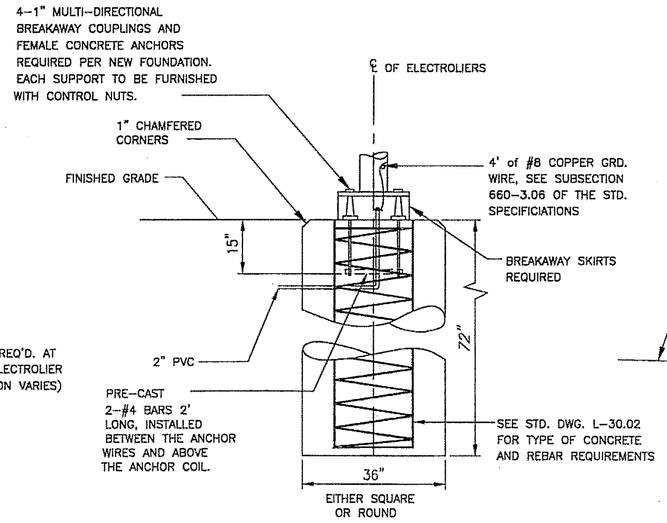
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N28	120



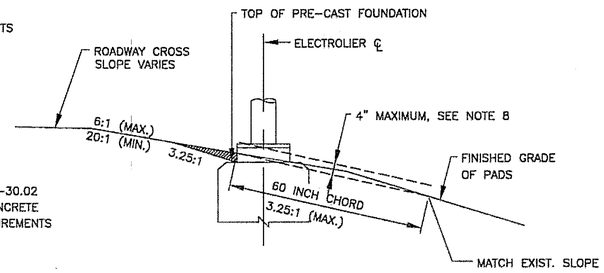
ELECTROLIER NOTES:

1. DESIGN AND FABRICATE ALL SHAFTS TO SUPPORT A MAST ARM 22' LONG WITH LUMINAIRE.
2. NEW LUMINAIRES SHALL HAVE A 35' MOUNTING HEIGHT. MOUNTING HEIGHT REFERS TO THE HEIGHT OF LUMINAIRE ABOVE THE ROADWAY. ADJUST EACH POLE'S SHAFT LENGTH TO MAINTAIN THIS DIFFERENCE IN ELEVATION WHENEVER SLOPE AND/OR OFFSET ELEVATION VARIES.
3. LUMINAIRE MAST ARMS SHALL BE AS NOTED IN CROSS SECTIONS.
4. LOCATE THE FIXTURE OVER THE SHOULDER STRIPE. IF NO SHOULDER STRIPE, LOCATE FIXTURE OVER THE CURB.
5. SEE SPECIFIC ELECTROLIER CROSS SECTION (SHEETS 15 TO 17) FOR INFORMATION PARTICULAR TO ELECTROLIER.

TYPICAL ELECTROLIER DETAIL

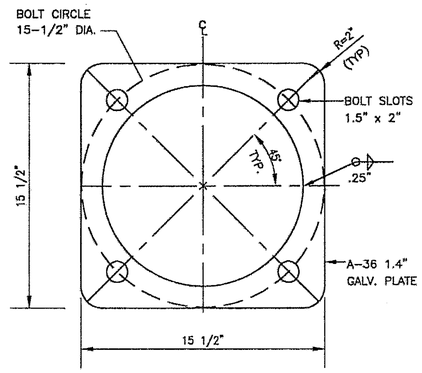


FOUNDATION WITH BREAKAWAY COUPLINGS



INDICATES EMBANKMENT MATERIAL TO BE REMOVED FROM AROUND BREAKAWAY SKIRTS

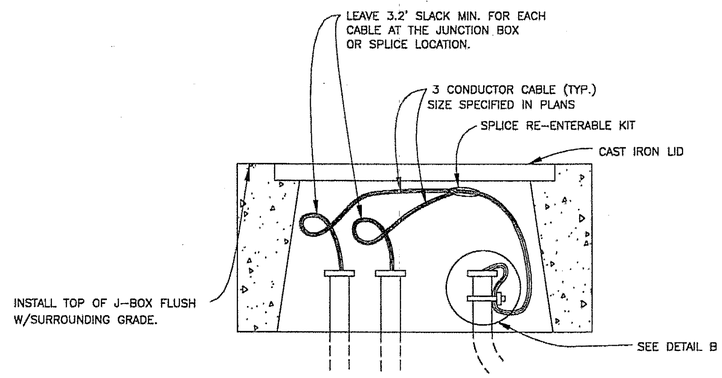
FOUNDATION GRADING DETAIL



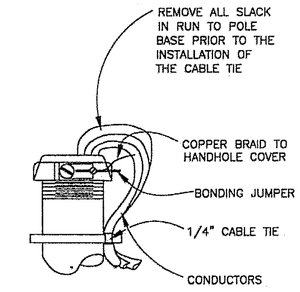
ANCHOR BASE DETAIL

ILLUMINATION GENERAL NOTES

1. PROVIDE 2" PVC CONDUIT AND 3C #8 CABLE.
2. EACH ELECTROLIER SHALL HAVE A J-BOX INSTALLED ADJACENT TO THE FOUNDATION AS SHOWN IN THE POLE AND J-BOX WIRING DETAIL.
3. ALL JUNCTION BOXES SHALL BE TYPE I-A. SEE STANDARD DRAWING L-23.01.
4. NEW ELECTROLIER FOUNDATIONS SHALL BE PRE-CAST. PRE-CAST FOUNDATIONS SHALL BE LIFTED AND TRANSPORTED USING A DEVICE THAT DISTRIBUTES THE LOAD EVENLY BETWEEN THE ANCHOR BOLTS.
5. INSTALL THE PHOTOELECTRIC CELL ON TOP OF THE NEAREST ELECTROLIER POLE, UNLESS SHOWN OTHERWISE.
6. ILLUMINATION CIRCUIT WIRES SHALL BE NO. 8 AWG. 3-CONDUCTOR CABLE AS SPECIFIED IN STANDARD SPECIFICATION 660.
7. LUMINAIRES SHALL BE 240 VOLT, 250 WATT, HIGH PRESSURE SODIUM, MEDIUM DISTRIBUTION, CUT-OFF, IES TYPE III AND SHALL BE HAVE MAGNETIC REGULATOR BALLASTS, AND HPS LAMPS WITH A 24,000 HOUR RATED LIFE.
8. NON-BREAKAWAY PORTIONS OF FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 4" ABOVE ANY 5' CHORD STARTING AND ENDING ON THE FINISHED GRADE OF THE ELECTROLIER PADS.
9. LUMINAIRE MASTARMS SHALL BE 15' LONG UNLESS NOTED ELSEWHERE.
10. NEW LUMINAIRES SHALL HAVE A 35' MOUNTING HEIGHT
11. MAXIMUM SPACING BETWEEN ALL (NEW OR OLD) JUNCTION BOXES SHALL BE 190 FEET. THE COST TO INSTALL ADDITION JUNCTION BOXES SHALL BE INCIDENTAL TO THE LIGHTING SYSTEM PAY ITEM.

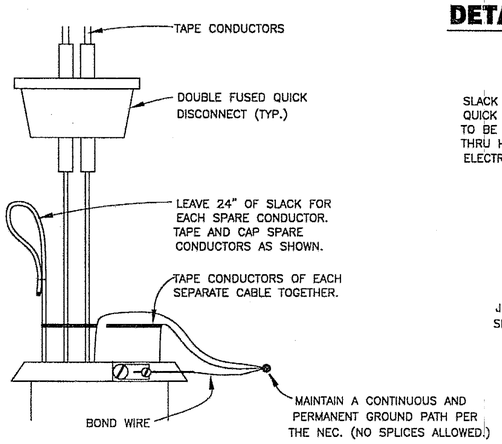


DETAIL A



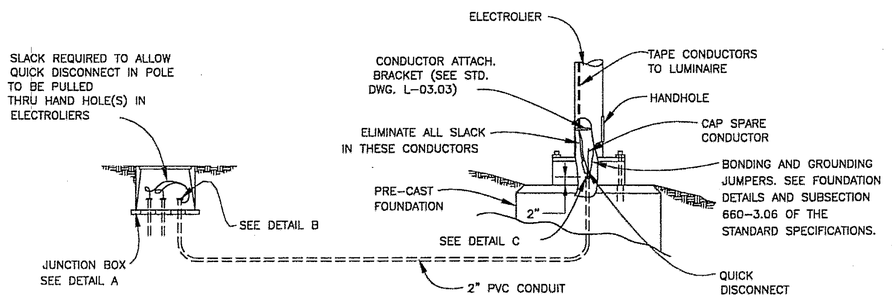
DETAIL B

(IN J-BOX)



DETAIL C

(IN POLE BASE)



LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS

(BREAKAWAY COUPLINGS)

PATH:
I:\696200\Drawings\E\IRB_Bound_Elec_122805
Wed, 28/Dec/05 11:31AM gpinckert
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

DOT ELECTROLIER STANDARD

PREPARED BY: USKH INC.

DESIGNED BY:

STATE OF ALASKA 49TH GARY R. HABLE EE-10243 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY:

DRAWN BY: WJP

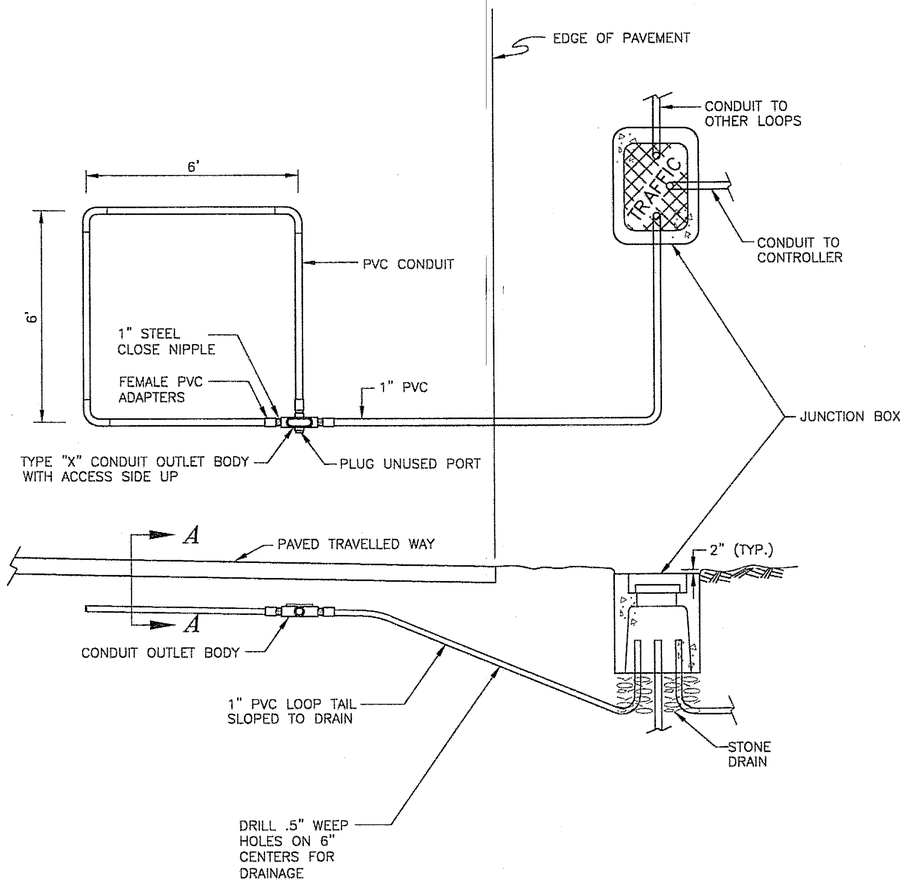
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

DOT ELECTROLIER STANDARD

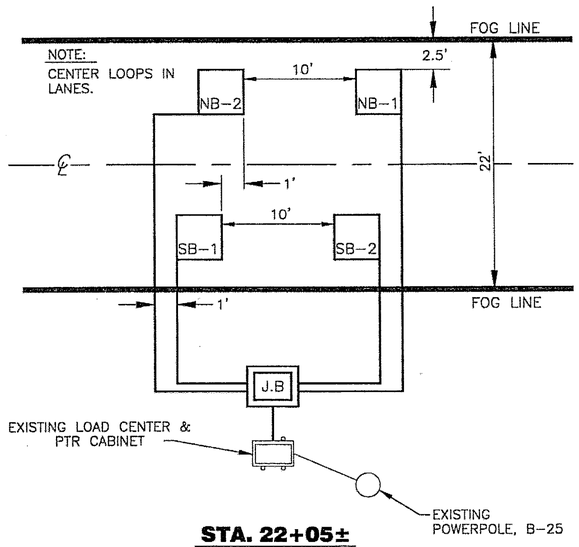
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N29	120

GENERAL NOTES

1. REMOVE AND REPLACE EXISTING LOOP DETECTOR INCLUDING LOOPS, JUNCTION BOX, CONDUIT, AND WIRING UP TO THE EXISTING PTR CABINET.
2. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF #14 AWG CONDUCTOR INSTALLED IN 1" SCHEDULE 80 PVC CONDUIT. FORM ALL LOOPS 6' SQUARE, SOLVENT WELD ALL PVC TO PVC JOINTS. USE TYPE X OUTLET BODIES THAT ARE MADE OF HOT DIP GALVANIZED STEEL TO JOIN THE LOOPS AND TAILS.
3. INSTALL 4 TURNS OF CONDUCTOR IN ALL LOOPS AND PROVIDE TAILS THAT EXTEND TO THE JUNCTION BOX SPECIFIED ON THE PLANS. USE #14 AWG CONDUCTOR IN A POLYETHYLENE TUBE CONFORMING TO IMSA SPECIFICATION 51-5. WIND THE TAIL CONDUCTORS TOGETHER AT A RATE OF 3 TWISTS PER FOOT.
4. INSTALL ALL LOOP DETECTORS PRIOR TO OVERLAYING EXISTING PAVEMENT OR PAVING A NEW ROADWAY.
5. INSTALL ALL LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS.
6. NO MINIMUM CLEARANCE IS REQUIRED BETWEEN A LOOP AND A TAIL OR BETWEEN TAILS. LOOP TAILS SHALL NOT CROSS LOOP CONDUITS.
7. TEST ALL LOOP DETECTORS FOR CONTINUITY AND INSULATION INTEGRITY PRIOR TO SEALING THE LOOPS UNDER ASPHALT.



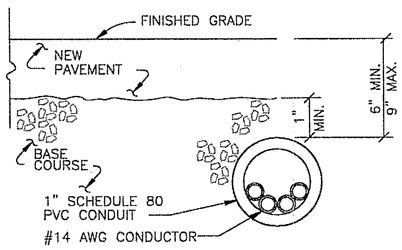
SHOULDER SECTION



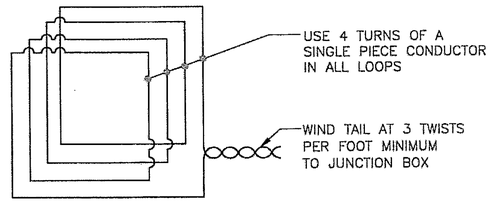
STA. 22+05±

LOOP REPLACEMENT DETAIL

N.T.S.



SECTION A-A



LOOP WIRING DETAIL

CONDUIT TYPE	CONDUIT SIZE	FROM	TO	CABLE QTY.	CABLE TYPE
PVC	1"	JB1	NB-2	1	1PR No.14
PVC	1"	JB1	SB-2	1	1PR No.14
PVC	1"	JB1	SB-1	1	1PR No.14
PVC	1"	JB1	SB-1	1	1PR No.14

CONDUIT/CONDUCTOR SCHEDULE

PATH: I:\696200\Drawings\E\IRB_Bound_Elec_122805
Wed, 28/Dec/05 11:27AM gpinckert
PLOT: PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

LOOP DETECTOR DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: KM

STATE OF ALASKA 49TH GARY R. HABLE EE-10243 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: NCL

DRAWN BY: WJP

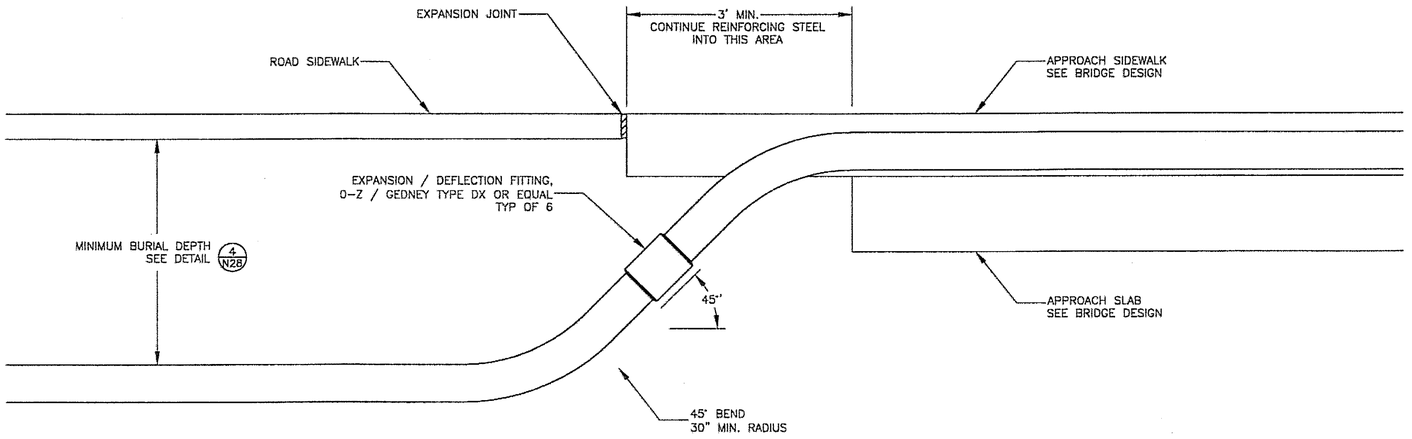
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

LOOP DETECTOR DETAILS

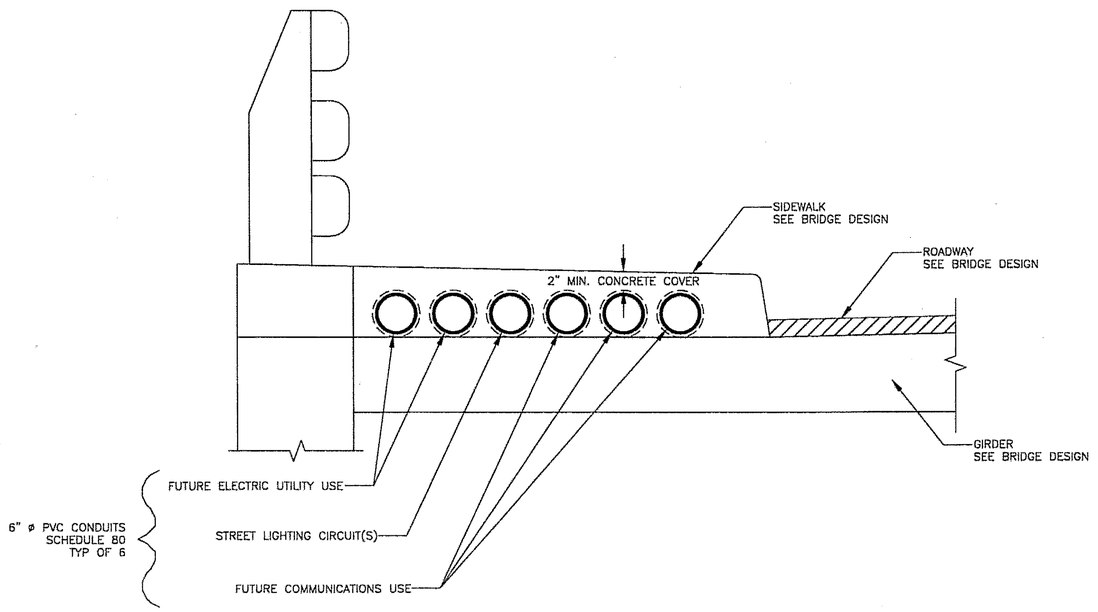
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
N30	120



1/N31 **CONDUIT TRANSITION DETAIL**



2/N31 **CONDUIT LAYOUT DETAIL**

PATH:
I:\696200\Drawings\E\IRB_Bound_Elec_122805
Wed, 28/Dec/05 11:30AM gpinckert
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

CONDUIT DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: NCL

STATE OF ALASKA
49TH
GARY R. HABLE
EE-10243
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: NCL

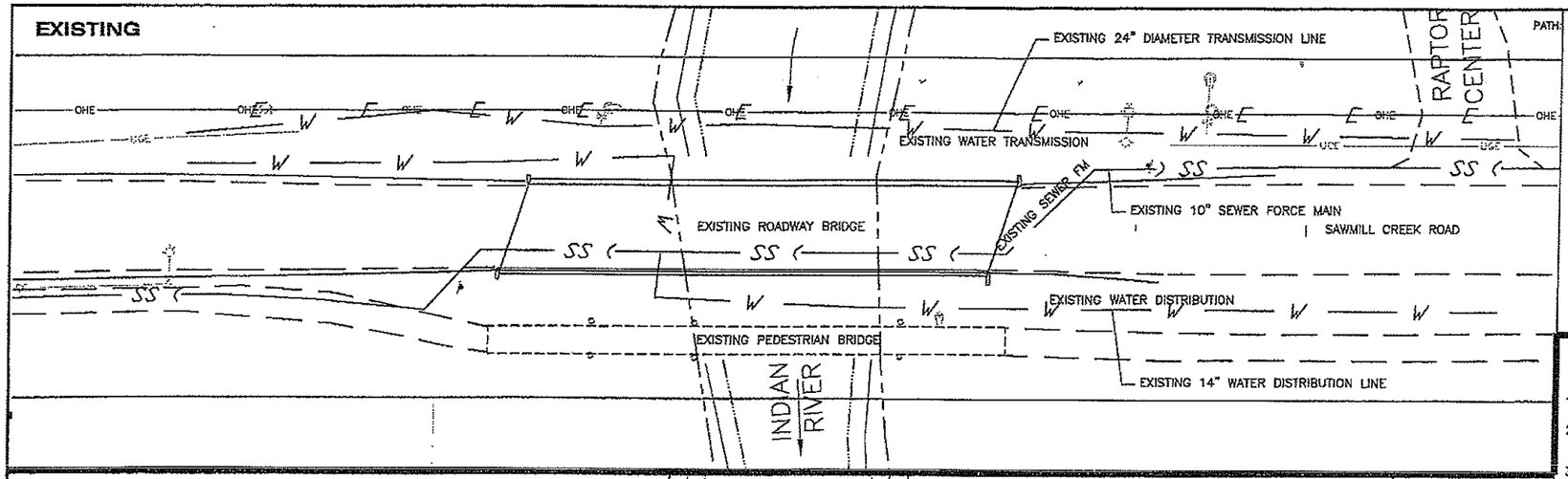
DRAWN BY: WJP

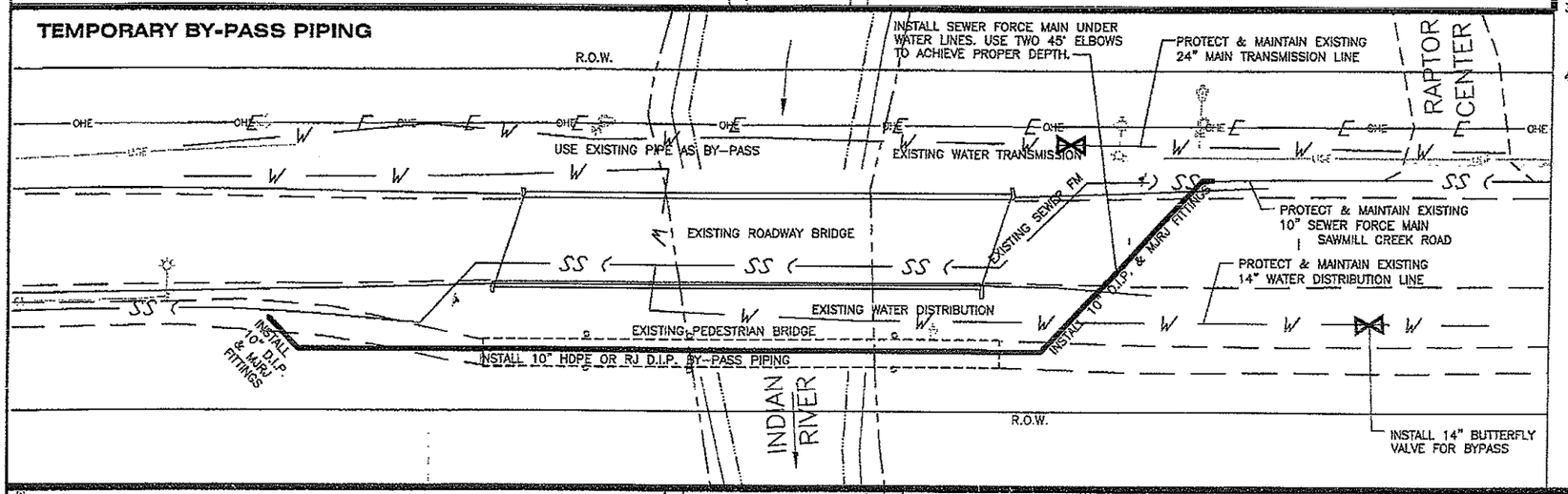
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

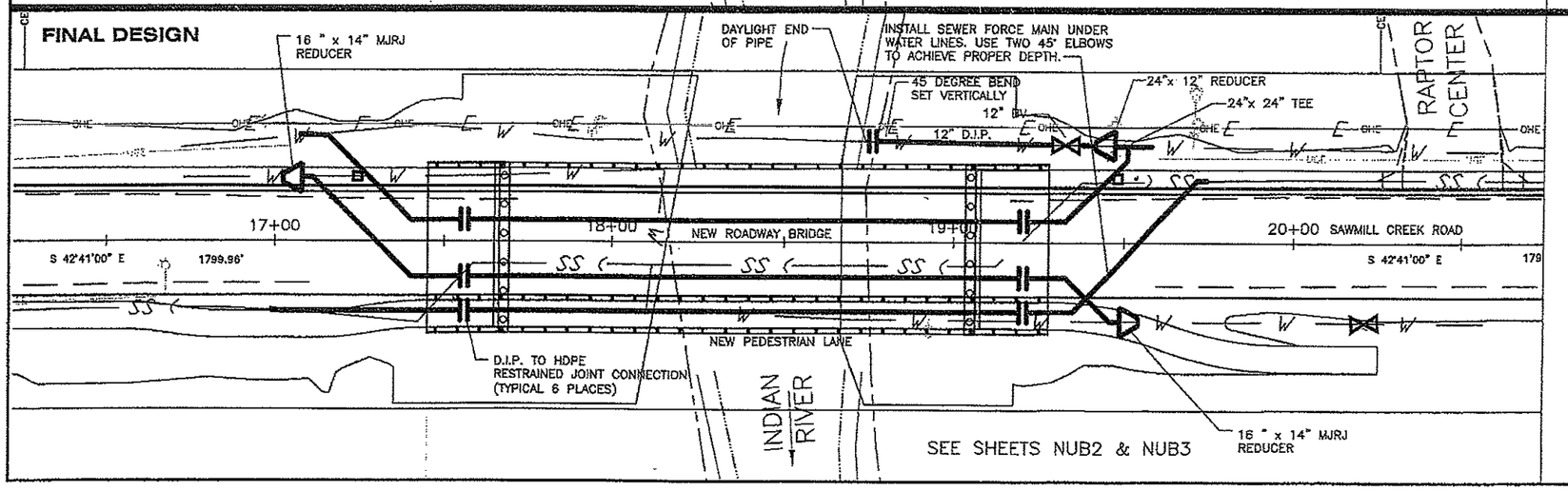
CONDUIT DETAILS

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
N31	120







WATER SYSTEM

1) COORDINATE ALL ACTIVITIES WITH THE CBS WATER DEPARTMENT.
2) NOTIFY RAPTOR CENTER 48 HOURS PRIOR TO INSTALLING BYPASS VALVES ON EXISTING WATER DISTRIBUTION LINE.
3) WATER SERVICE IN EITHER THE WATER TRANSMISSION LINE OR THE WATER DISTRIBUTION LINE MAY BE INTERRUPTED FOR UP TO 4 HOURS TO INSTALL THE BYPASS VALVES BUT NOT AT THE SAME TIME.
4) WATER SERVICE IN EITHER THE WATER TRANSMISSION LINE OR THE WATER DISTRIBUTION LINE MUST BE MAINTAINED AT ALL TIMES. AFTER INSTALLATION OF THE BYPASS VALVES, SERVICE IN ONE LINE OR THE OTHER MAY BE INTERRUPTED FOR AS LONG AS NEEDED TO CONSTRUCT THE PROJECT. DISINFECT AND PRESSURE TEST NEW LINES BEFORE PLACING THEM INTO SERVICE.

SEWER BY-PASS PIPING CONSTRUCTION SEQUENCE

1) DEACTIVATE PIPELINE.
2) CUT-IN BY-PASS PIPE, MAX INTERUPTION: 4 HOURS
3) RECHARGE PIPELINE.
4) CONSTRUCT NEW PIPING.
5) CUT-IN NEW PIPING, MAX INTERUPTION: 4 HOURS

NOTE:
ALL FITTINGS & VALVES TO BE RETSTRAINED JOINT UNLESS SHOWN OTHERWISE.
VALVES TO BE FURNISHED W/ VALVE BOX PER CBS STD. DETAIL 60-3.

SEWER & WATER-FINAL DESIGN

CONSTRUCT FINAL PIPELINE.

OPEN THROUGH VALVES.

CLOSE BY-PASS VALVES.

REMOVE TEMPORARY BY-PASS PIPING.

PATH: D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\TONGASS\NUB1.dwg, Thu, 13/Nov/06 10:20PM
SIH
PLOT:
PSPACE 1=1(F), OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

INDIAN RIVER
BRIDGE CROSSING
PLAN VIEWS

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn
CHECKED BY: J. Dorn
DRAWN BY: RASIII/GDM

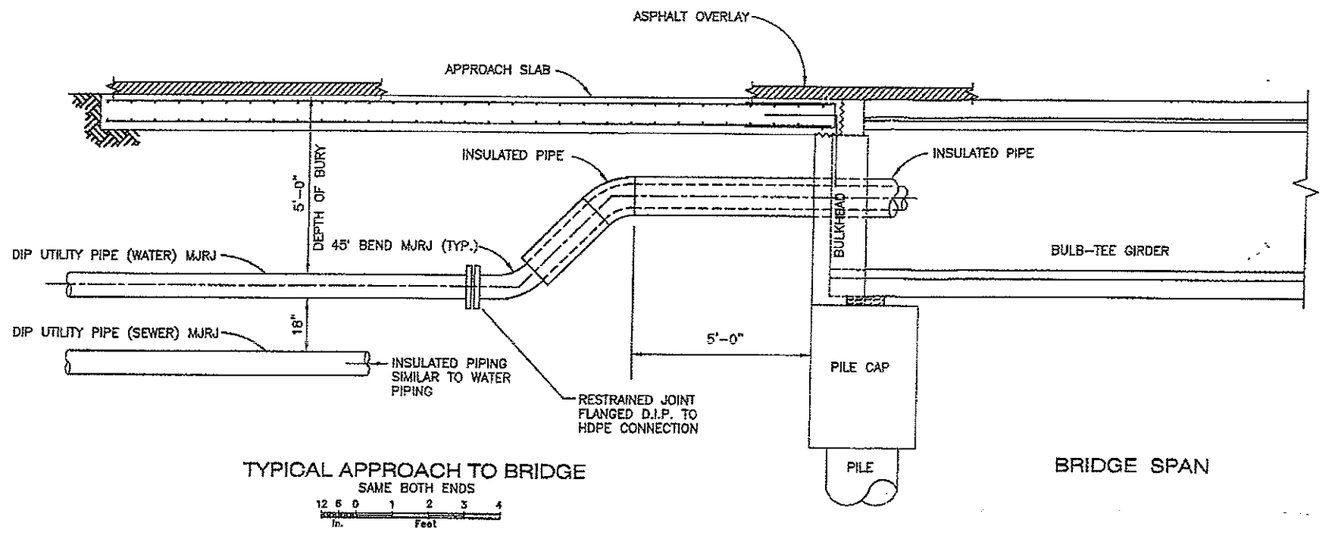
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
INDIAN RIVER
BRIDGE CROSSING
PLAN VIEWS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
NUB1	

D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\TONGASS\NUB1.dwg, 11/13/2006 10:20:21 PM

PATH: D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\TONGASS\NUB2.dgn, 13/Nov/08 11:09PM
SB
PLOT:
FSPACE 1=1(F) OR MSPACE 1=1(F)



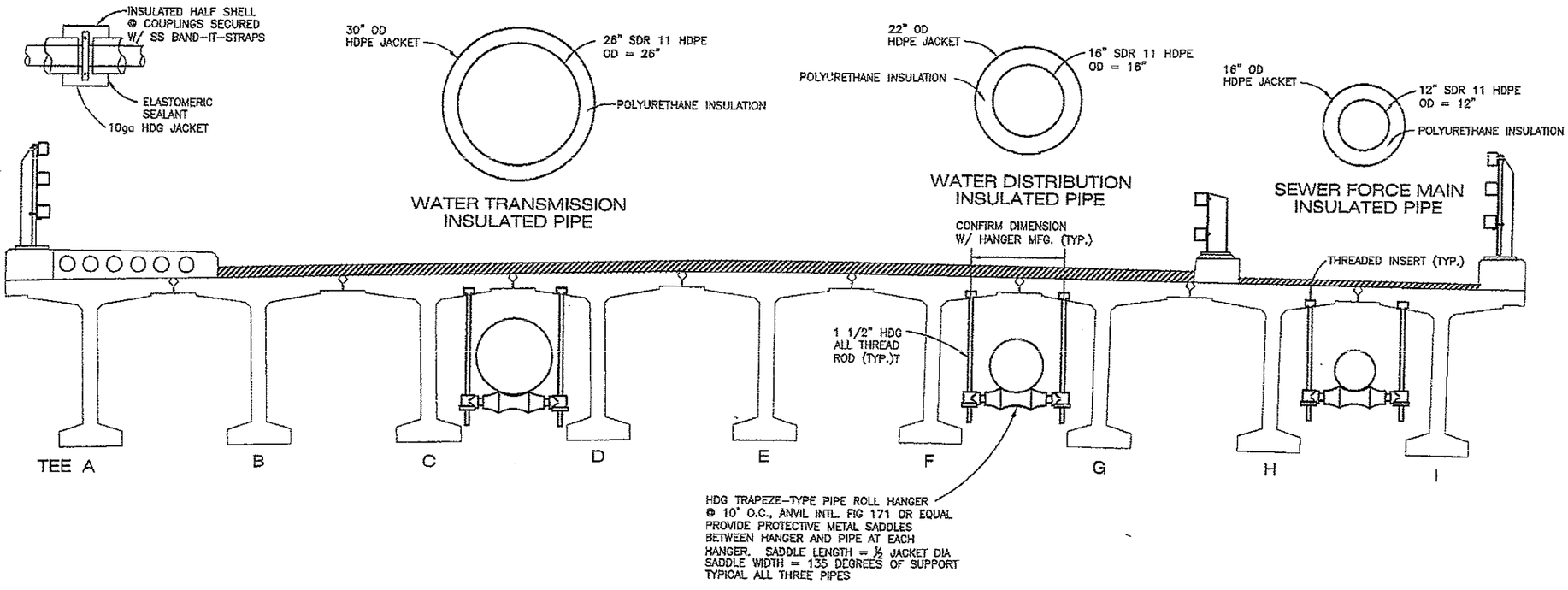
TYPICAL APPROACH TO BRIDGE
SAME BOTH ENDS

BRIDGE SPAN

12 6 0 1 2 3 4
In. Feet

NOTES:

1. LOCATE INSERTS FOR PIPE HANGERS AND SWAY BRACING PER THE PIPE HANGER MANUFACTURER'S RECOMMENDATIONS AND DIMENSIONS.
2. INSERTS FOR PIPE HANGERS AND SWAY BRACING TO BE FOR 1 ½" DIAMETER THREADED ROD AND TO HAVE A SAFE WORKING LOAD OF 3,500 LBS.
3. INSTALL INSERTS FOR SWAY BRACING ON SAME LONGITUDINAL ALIGNMENT AS INSERTS FOR PIPE HANGERS.
4. SECURE ALL NUTS AND THREADED ROD CONNECTIONS WITH A THREADED LOCKING SYSTEM.
5. SEE SHEET NUB 3 FOR PIPE SUPPORT AND SWAY BRACING SPACING.



WATER TRANSMISSION INSULATED PIPE

WATER DISTRIBUTION INSULATED PIPE

SEWER FORCE MAIN INSULATED PIPE

BRIDGE TYPICAL CROSS SECTION

12 6 0 1 2 3 4
In. Feet

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

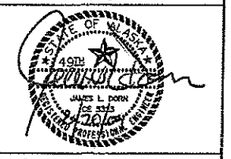
No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

INDIAN RIVER BRIDGE CROSSING SECTIONS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn



CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

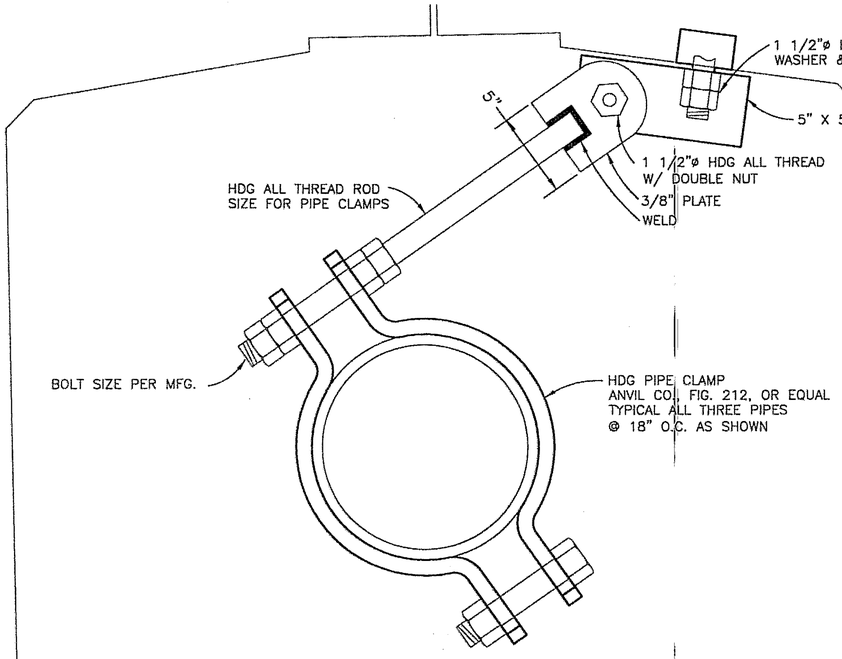
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES INDIAN RIVER BRIDGE CROSSING SECTIONS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
NUB2	

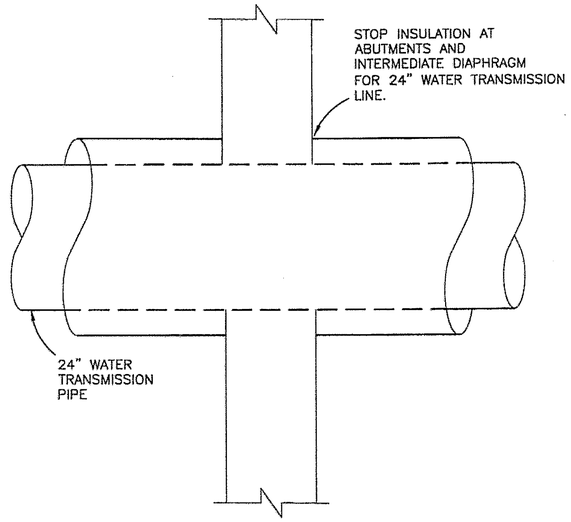
D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\TONGASS\NUB2.dwg, 11/13/2006 11:09:34 PM

PATH: D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\NUB3.dwg

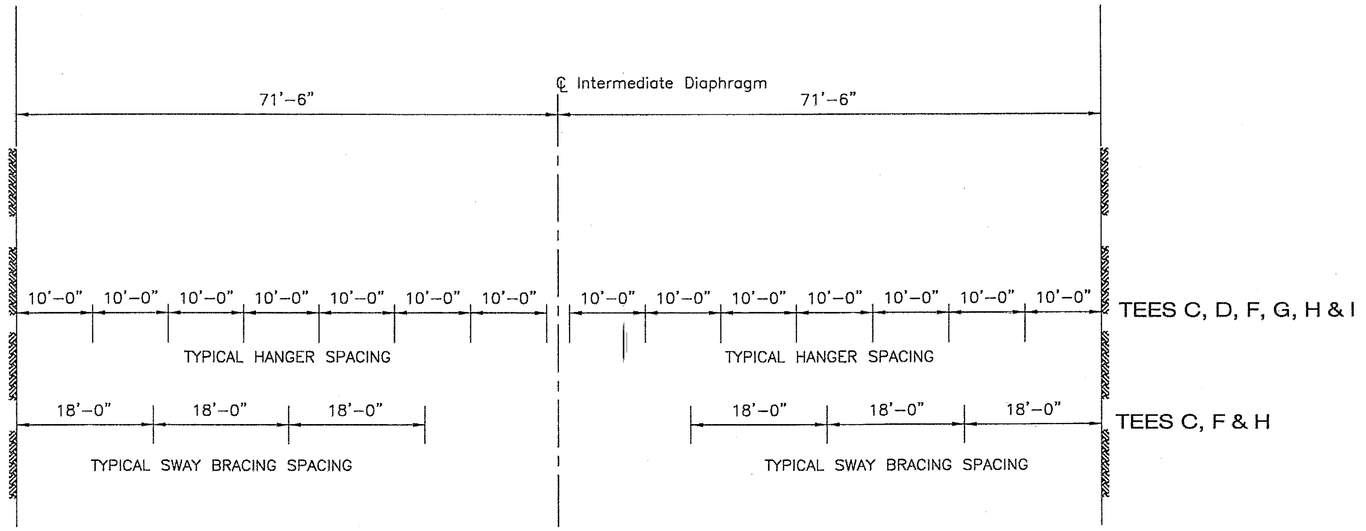


TYPICAL SWAY BRACE

120 5 10
In. Feet



TYPICAL 24" WATER TRANSMISSION PIPE AT ABUTMENTS AND INTERMEDIATE DIAPHRAGM



HANGER & SWAY BRACING SPACING

10 5 0 10 20
Feet

Mon, 19/Dec/05 07:31AM
SIII
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

INDIAN RIVER
BRIDGE CROSSING
SECTIONS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

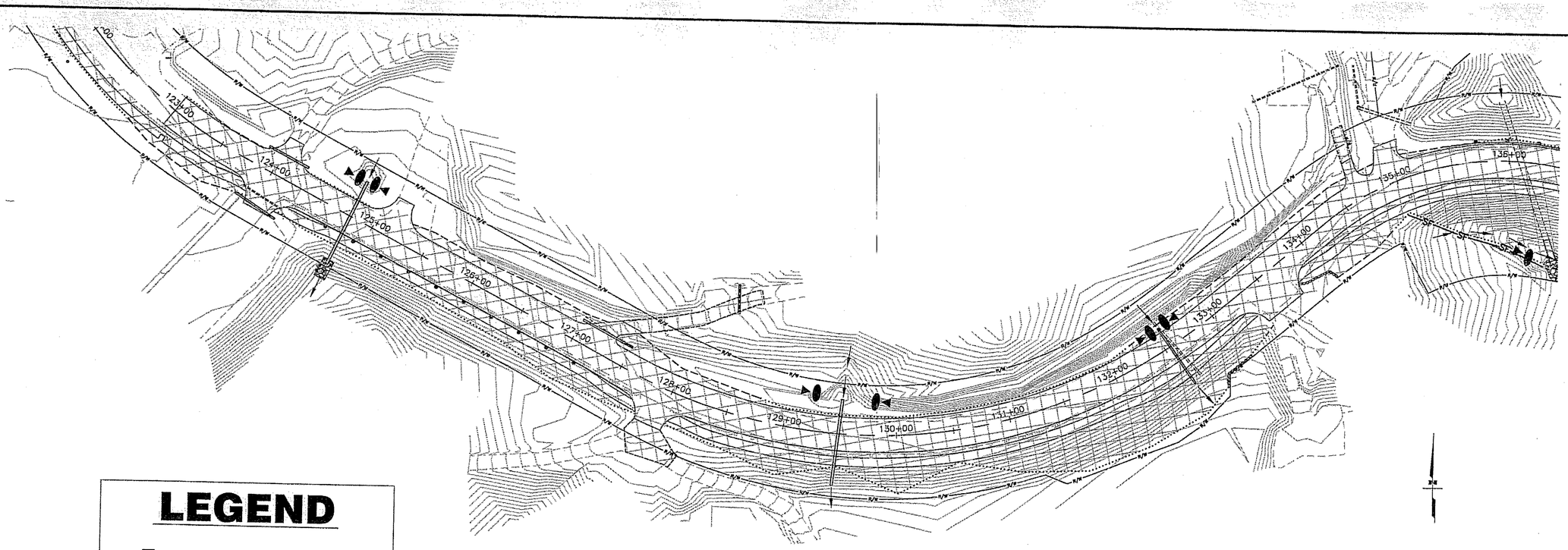
DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
INDIAN RIVER
BRIDGE CROSSING
SECTIONS

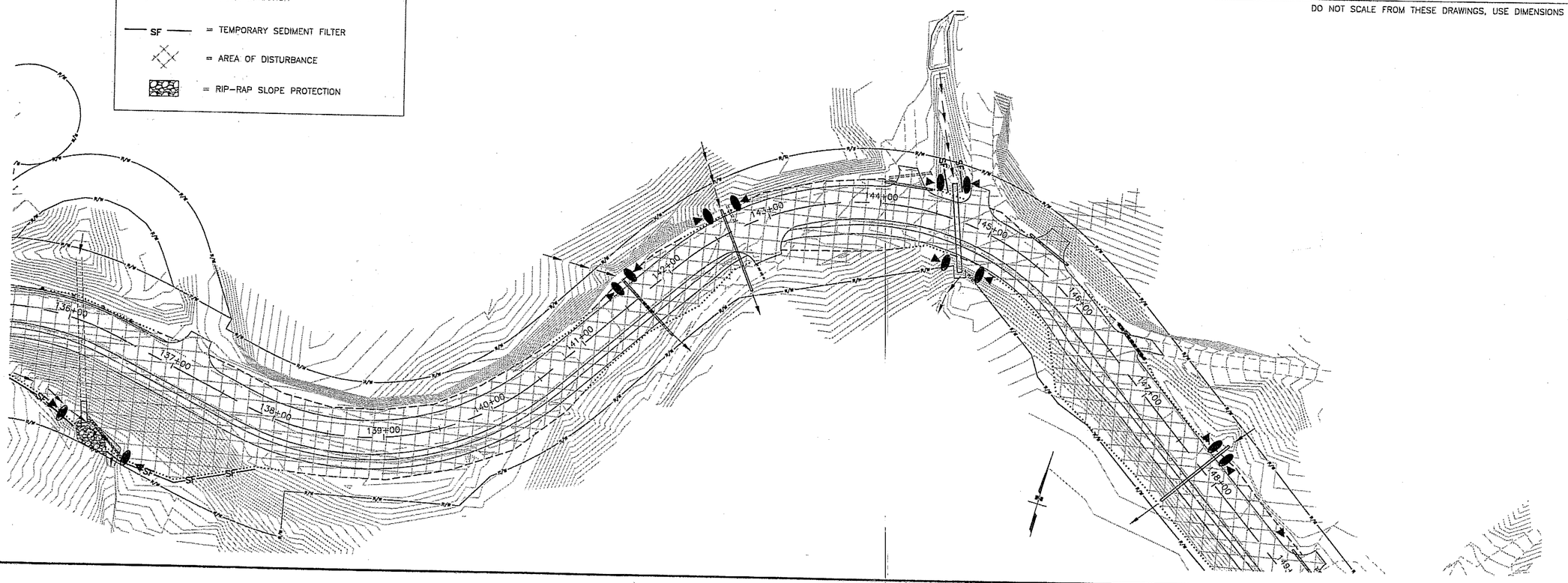
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
NUB3	120

D:\2cad\SE_AK\SITKA\SMC_SWR_\INDIAN_RIVER_BRIDGE\NUB3.dwg, 12/19/2005 7:31:00 AM



LEGEND

- ■ = CATCH BASIN SEDIMENT CONTROL
- = TEMPORARY DIKE OR CHECK DAM
- = FLOW DIRECTION
- SF = TEMPORARY SEDIMENT FILTER
- = AREA OF DISTURBANCE
- = RIP–RAP SLOPE PROTECTION



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS

PATH:
I:\696201\DWGS\Sheets\P01_P03.dwg
Thu, 29/Dec/05 08:16AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

EROSION & SEDIMENT CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

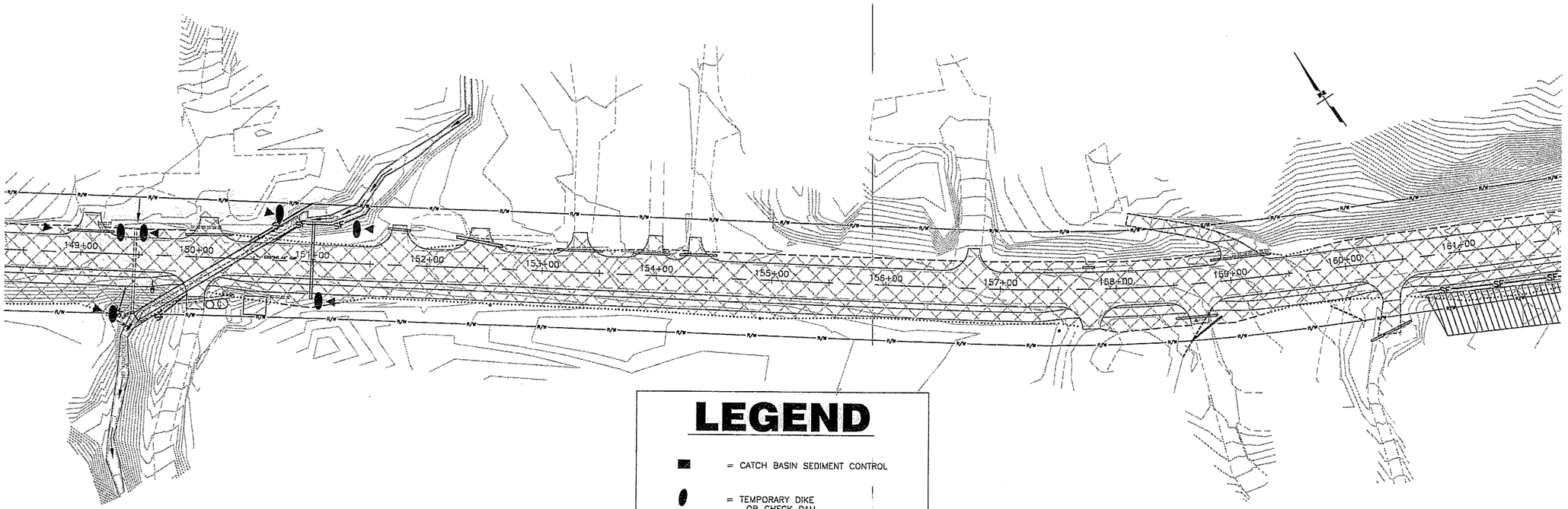
CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

EROSION & SEDIMENT CONTROL PLAN STA. BOP TO STA. 148+50

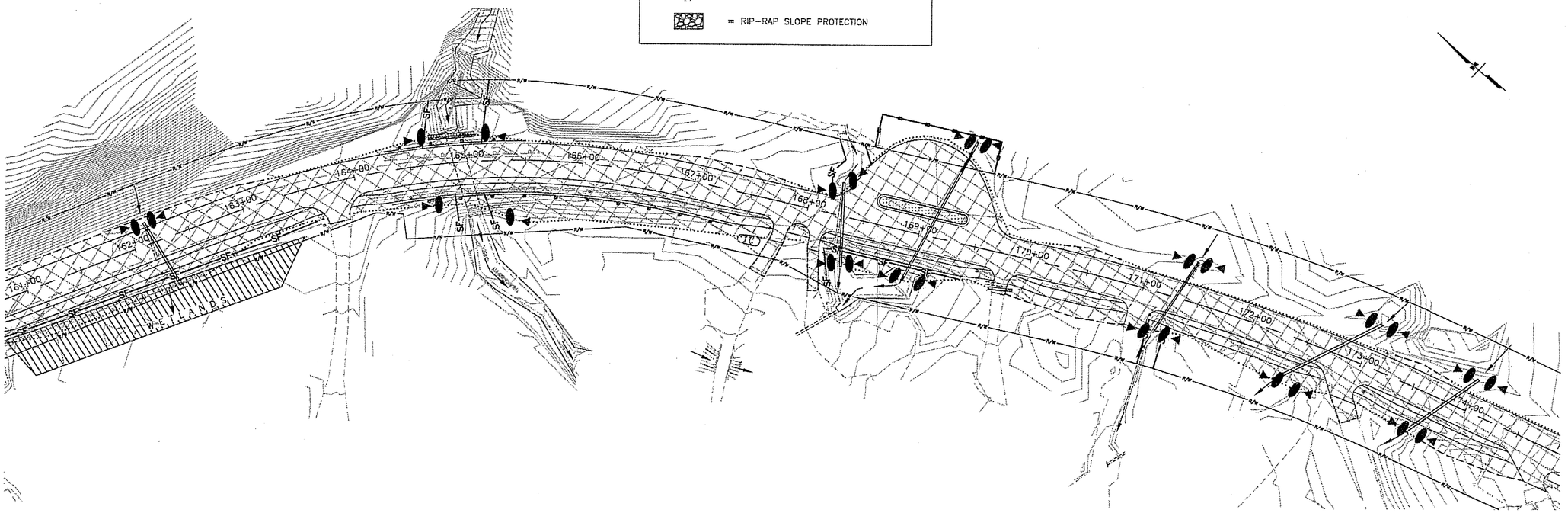
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
P1	120



LEGEND

- = CATCH BASIN SEDIMENT CONTROL
- = TEMPORARY DIKE OR CHECK DAM
- = FLOW DIRECTION
- SF = TEMPORARY SEDIMENT FILTER
- = AREA OF DISTURBANCE
- = RIP-RAP SLOPE PROTECTION

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\P01_P03.dwg
Thu, 29/Dec/05 08:19AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

EROSION & SEDIMENT CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

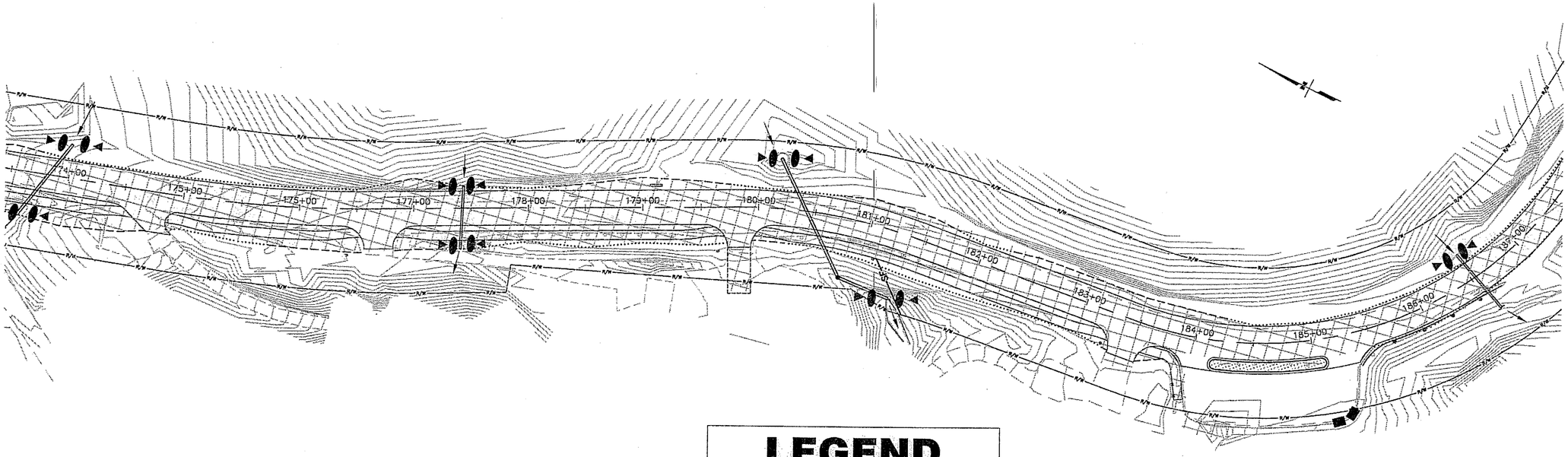
CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

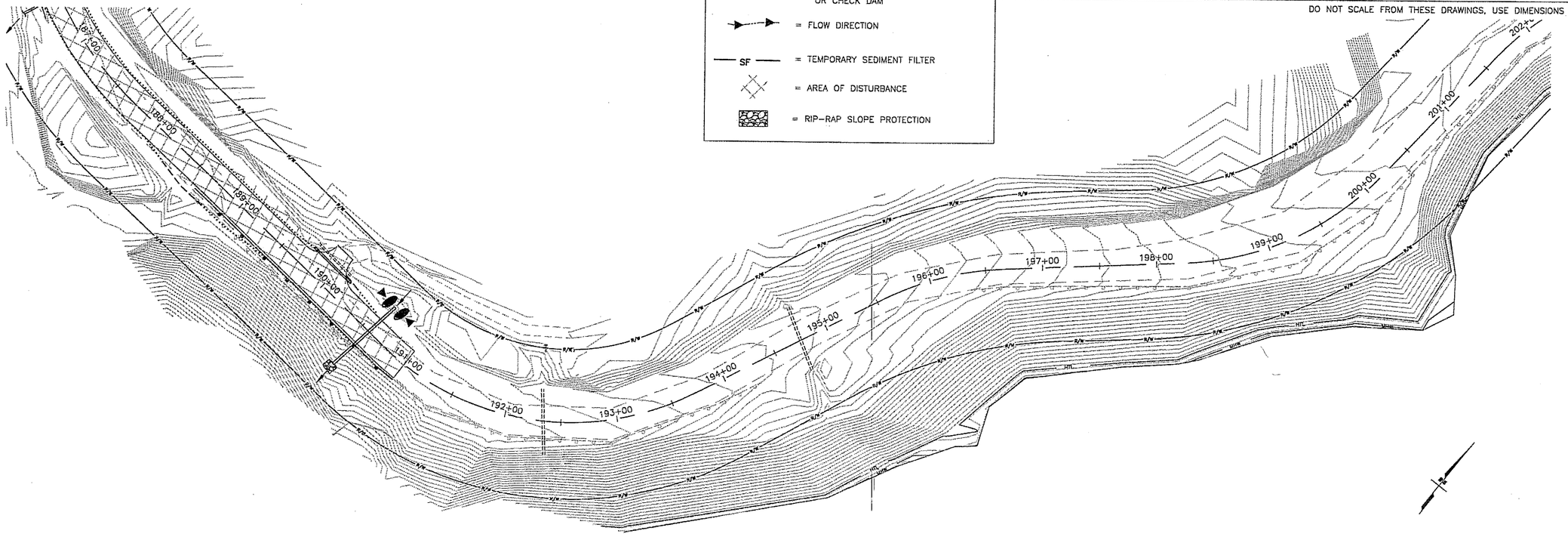
EROSION & SEDIMENT CONTROL PLAN STA. 148+50 TO STA. 174+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
P2	120



LEGEND

- = CATCH BASIN SEDIMENT CONTROL
- = TEMPORARY DIKE OR CHECK DAM
- = FLOW DIRECTION
- SF = TEMPORARY SEDIMENT FILTER
- = AREA OF DISTURBANCE
- = RIP-RAP SLOPE PROTECTION



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS

PATH:
I:\696201\DWGS\Sheets\P01_P03.dwg
Thu, 29/Dec/05 08:20AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

EROSION & SEDIMENT CONTROL PLAN

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49TH
Nathan C. Lean
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

EROSION & SEDIMENT CONTROL PLAN STA. 174+00 TO EOP

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
P3	120

EROSION AND SEDIMENT CONTROL PLAN:

GENERAL: THE INTENT OF THE ESCP IS TO KEEP SEDIMENT FROM ENTERING ANY OF THE WATERS SURROUNDING THE PROJECT.

1. THE PROJECT IS LOCATED IN THE INDIAN RIVER WATERSHED; A PORTION OF THE DRAINAGE FROM THE PROJECT WORK LIMITS DISCHARGES INTO THIS BODY OF WATER. THE INDIAN RIVER CROSSES THE PROJECT AT APPROXIMATELY STATION 18+50.

2. PETERSBURG, ALASKA (SOURCE: NOAA
   RAIN FALL: 86"/YEAR
   SNOW FALL: 39"/YEAR

   TIDAL DATA
   EHW = +14.6'
   MLLW = 0.00'
   ELW = -4.0'

3. INSTALL EROSION AND SEDIMENT CONTROL DEVICES FOR EARTH DISTURBING ACTIVITIES.

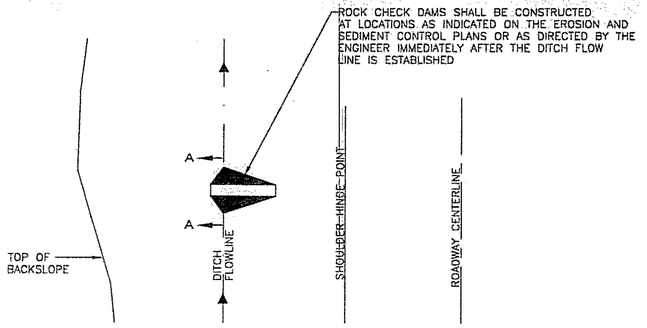
4. IF INSPECTION REVEALS STORM WATER IS BYPASSING EROSION CONTROL MEASURES, THE CONTRACTOR SHALL IMMEDIATELY IMPLEMENT CORRECTIVE ACTION. ADDITIONAL SEDIMENT FILTER OR CHECK DAMS MAY BE REQUIRED. SWEEPING OF PAVED SURFACES AND TEMPORARY SEEDING AND MATTING MAY ALSO BE REQUIRED.

5. STABILIZE DISTURBED GROUND AS SOON AS POSSIBLE. UNSTABILIZED SURFACES MUST BE TEMPORARILY STABILIZED WITH SEEDING, MATTING, OR OTHER EFFECTIVE MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL UNTIL PROJECT WORK AREAS ARE PAVED AND SEEDED AREAS HAVE ACHIEVED 70% VEGITATIVE COVER.

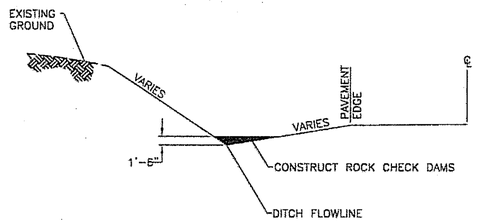
6. REFER TO PLAN SHEETS FOR LOCATION OF CHECK DAMS, SEDIMENT FILTERS, RIP-RAP PROTECTION, AND CATCH BASIN SEDIMENT CONTROLS.

7. CHECK DAMS ARE TEMPORARY BEST MANAGEMENT PRACTICES (BMP'S) TO BE INSTALLED PRIOR TO COMMENCING SILT GENERATING CONSTRUCTION ACTIVITIES. THEY SHALL BE REMOVED AT THE COMPLETION OF CONSTRUCTION.

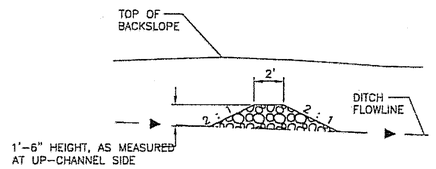
8. NEW DITCHES, CULVERT PIPES, AND RIPRAP ARE PERMANENT STRUCTURAL BMP FEATURES TO REMAIN WHEN CONSTRUCTION IS COMPLETED.



PLAN



ELEVATION

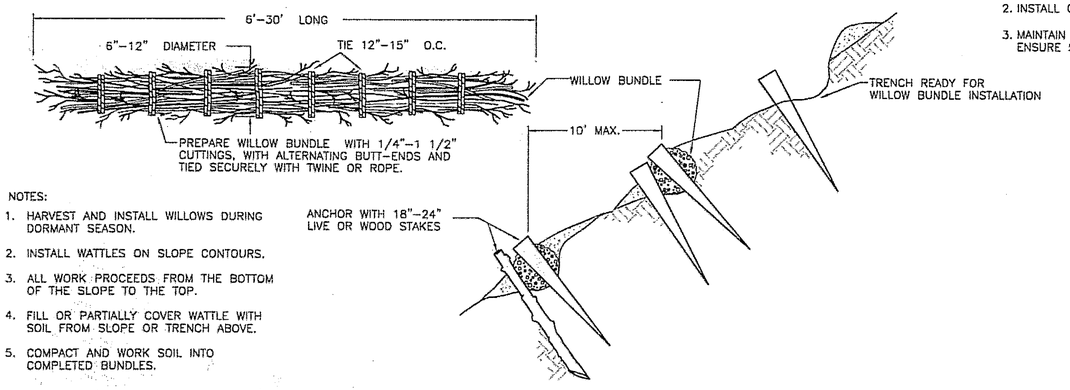


SECTION A-A

ROCK CHECK DAM NOTES:

1. AS DITCHING IS COMPLETED CHECK DAMS SHALL BE INSTALLED.
2. INSTALL CHECK DAMS AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. MAINTAIN DEVICES. MONITOR DAILY. EXCAVATE CHECK DAMS WHEN 4" OR MORE SEDIMENT. ENSURE SEDIMENT FILTER IS TIGHT AGAINST GROUND.

ROCK CHECK DAM DETAILS



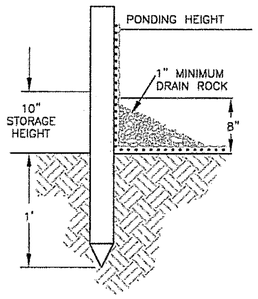
NOTES:

1. HARVEST AND INSTALL WILLOWS DURING DORMANT SEASON.
2. INSTALL WATTLES ON SLOPE CONTOURS.
3. ALL WORK PROCEEDS FROM THE BOTTOM OF THE SLOPE TO THE TOP.
4. FILL OR PARTIALLY COVER WATTLE WITH SOIL FROM SLOPE OR TRENCH ABOVE.
5. COMPACT AND WORK SOIL INTO COMPLETED BUNDLES.

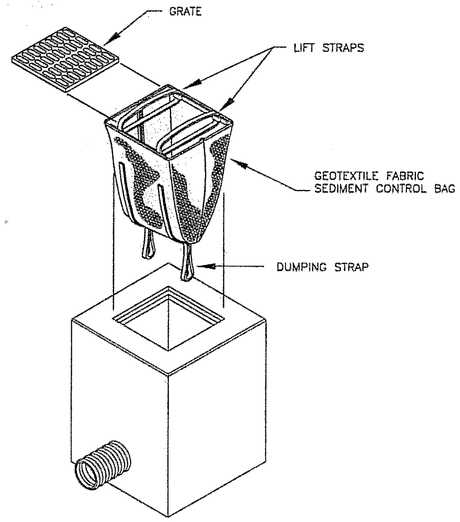
WILLOW CUTTING PLANTING DETAILS

SILT FENCE NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



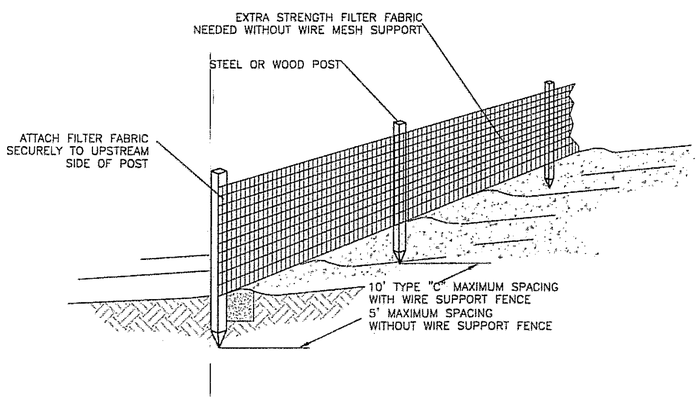
SECTION WITHOUT TRENCHING



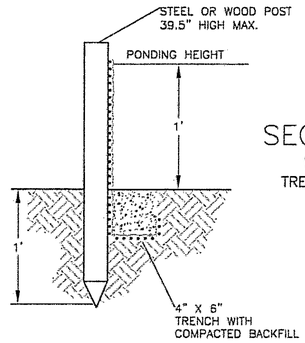
CATCH BASIN SEDIMENT CONTROL
INSTALLATION AND MAINTENANCE GUIDELINES

1. INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE SEDIMENT BAG SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.
2. MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE SEDIMENT BAG. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

CATCH BASIN SEDIMENT CONTROL



SEDIMENT FILTER DETAILS



SECTION WITH TRENCHING

PATH:
I:\696201\DWGS\Sheets\P04.dwg
Thu, 29/Dec/05 08:20AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

EROSION AND SEDIMENT CONTROL DETAILS

PREPARED BY: USKH INC.

DESIGNED BY: DLM

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

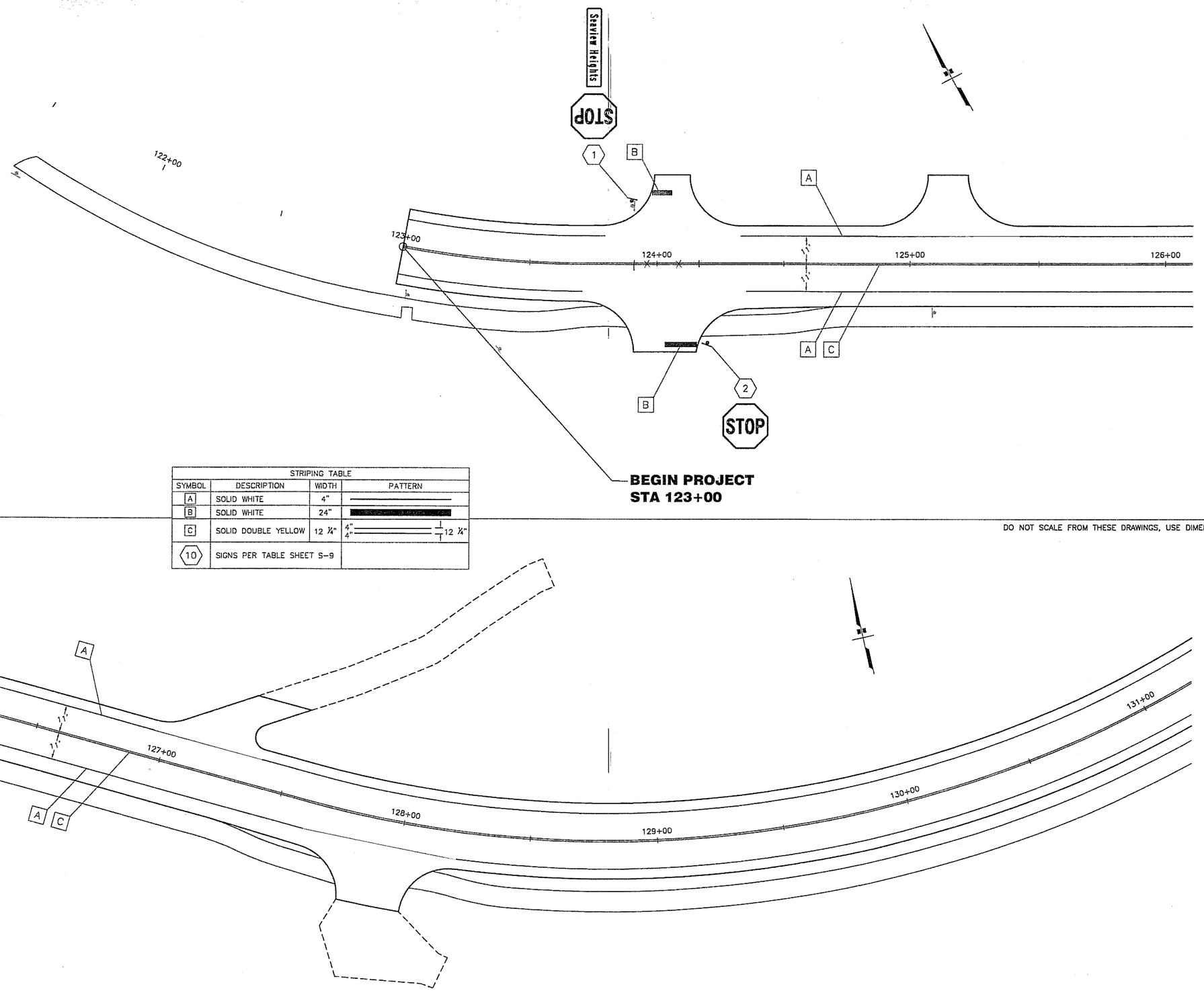
CHECKED BY: NCL

DRAWN BY: SAM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

EROSION & SEDIMENT CONTROL DETAILS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
P4	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" / 4" — 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS

PATH:
I:\696201\DWGS\Sheets\S01.dwg
Thu, 29/Dec/05 08:21AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

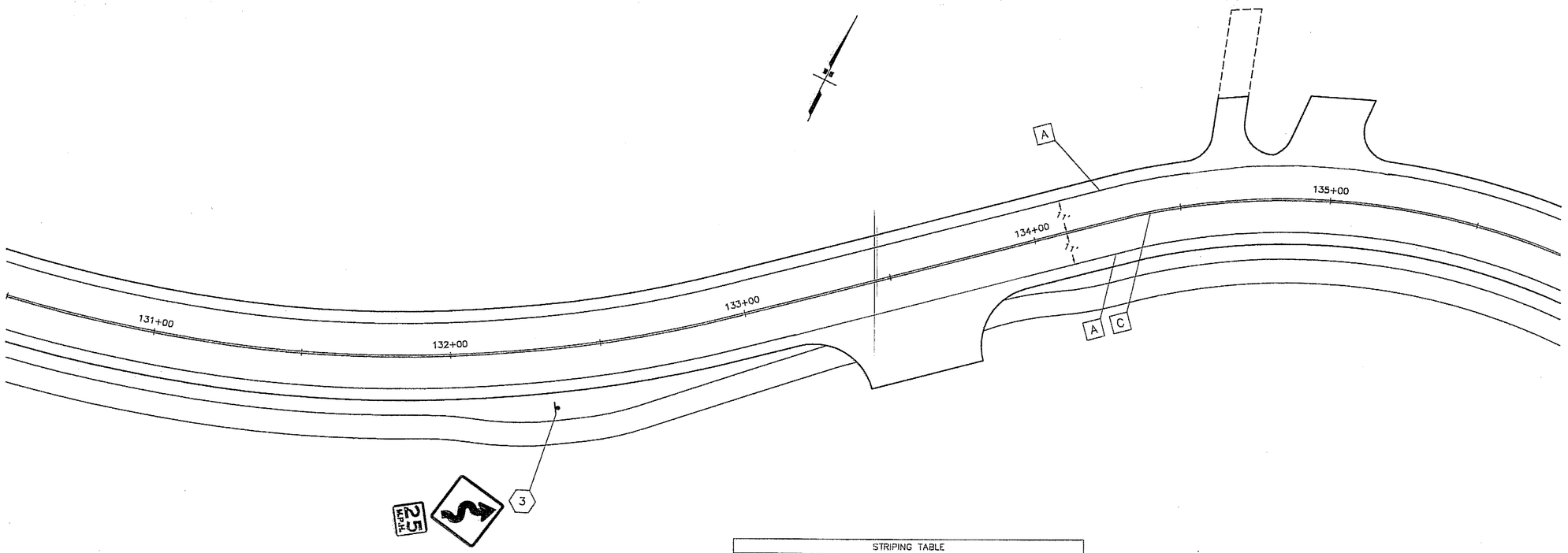
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES BOP TO STA. 131+00

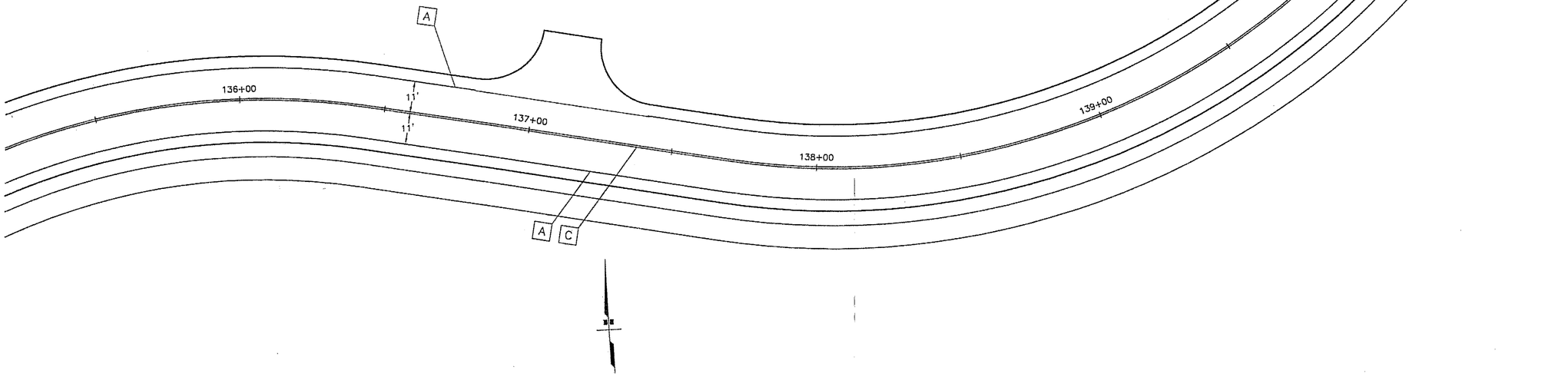
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S1	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ½"	4" 4" 12 ½"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\S02.dwg
Thu, 29/Dec/05 08:21AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

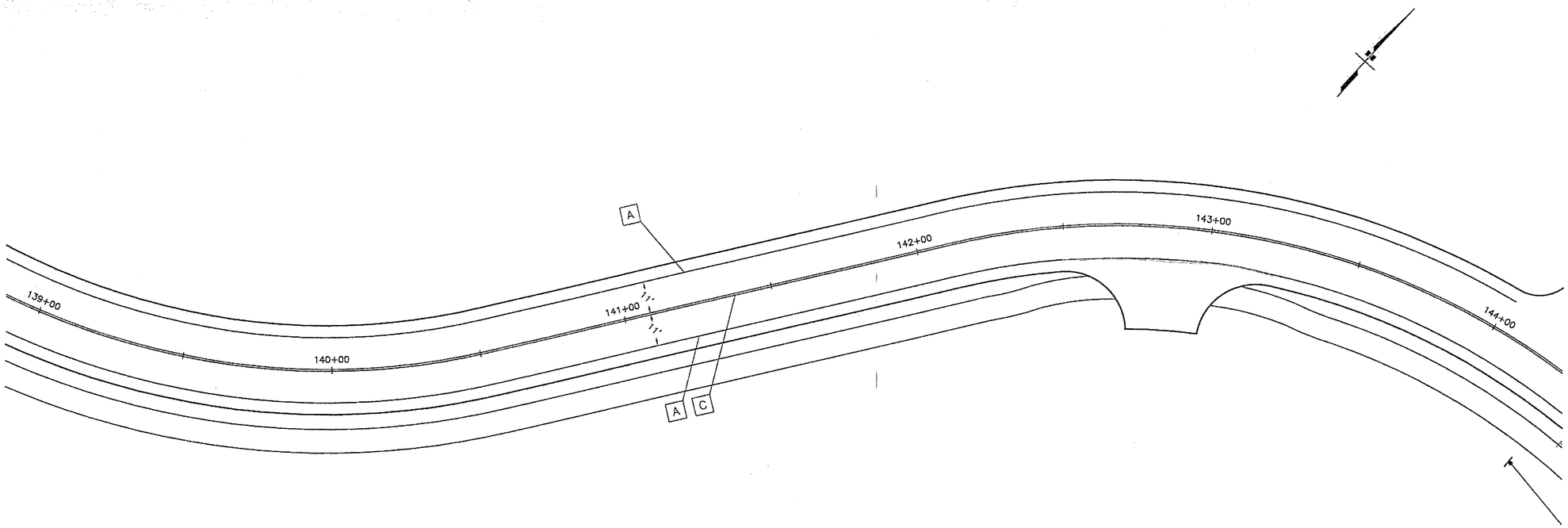
CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

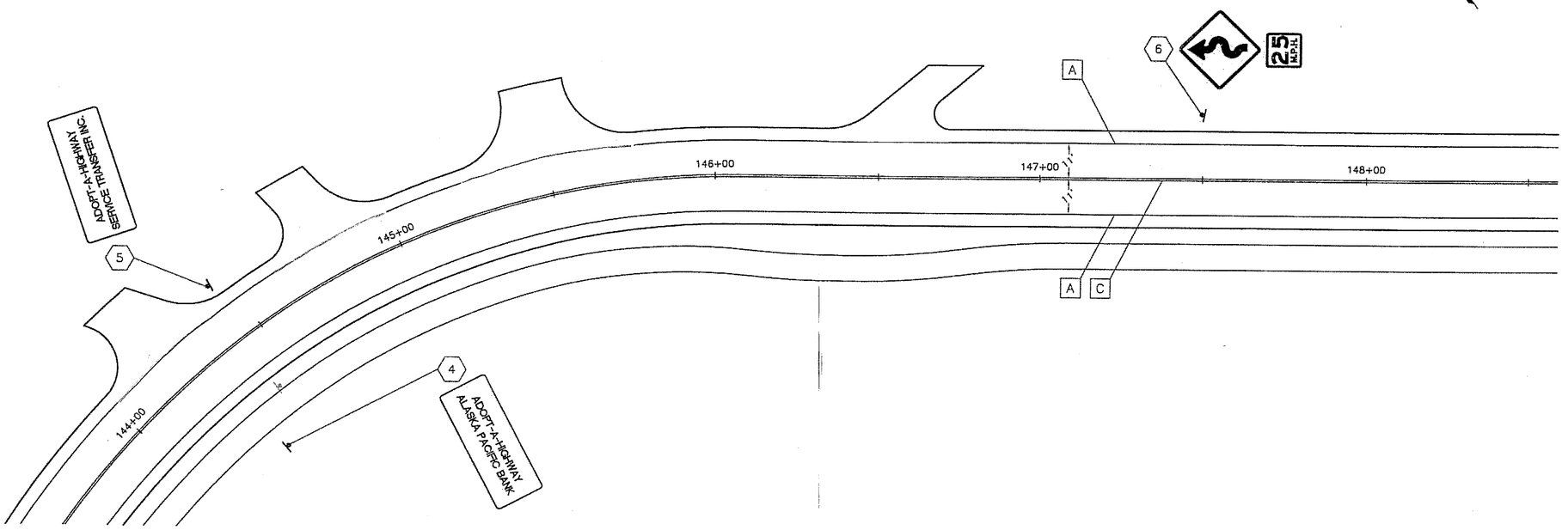
SIGNING & STRIPING PLANS & SUMMARIES STA. 131+00 TO STA. 140+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S2	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" 4" 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\S03.dwg
Thu, 29/Dec/05 08:22AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

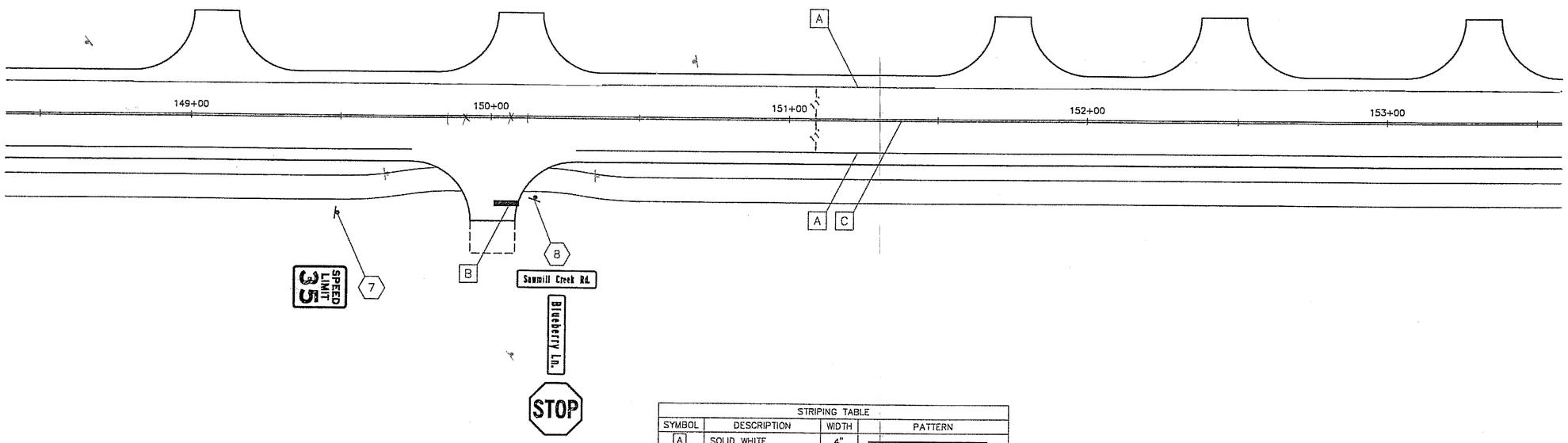
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES STA. 140+00 TO STA. 148+50

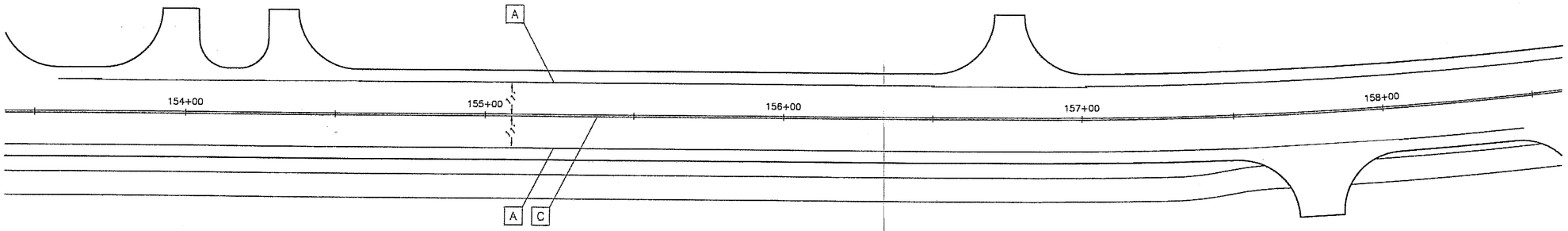
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S3	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" / 4" — 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\S04.dwg
Thu, 29/Dec/05 08:22AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA 49TH — Nathan C. Leigh CE-8386 REGISTERED PROFESSIONAL ENGINEER — 12-28-05

CHECKED BY: NCL

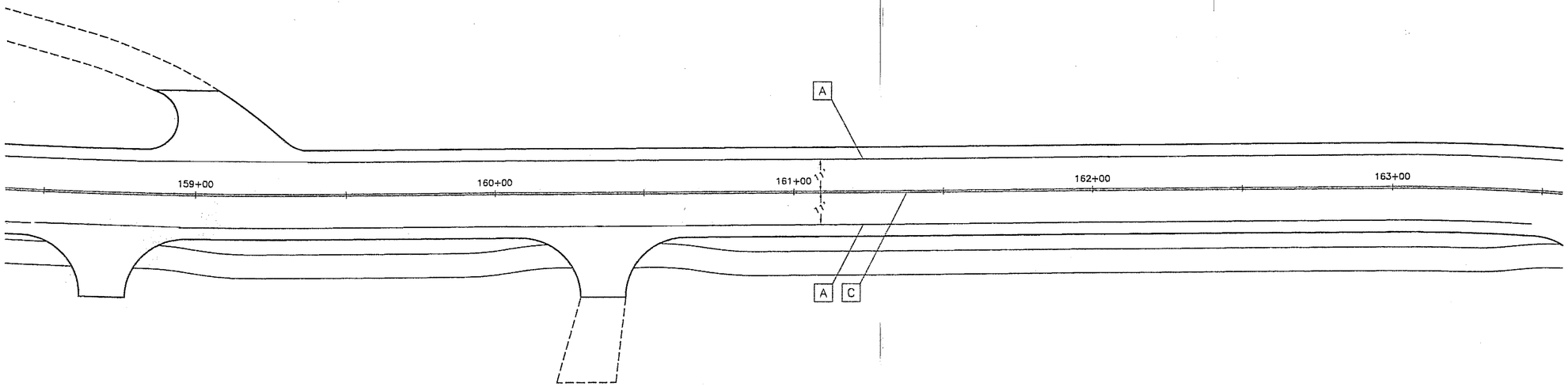
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES STA. 148+50 TO STA. 158+50

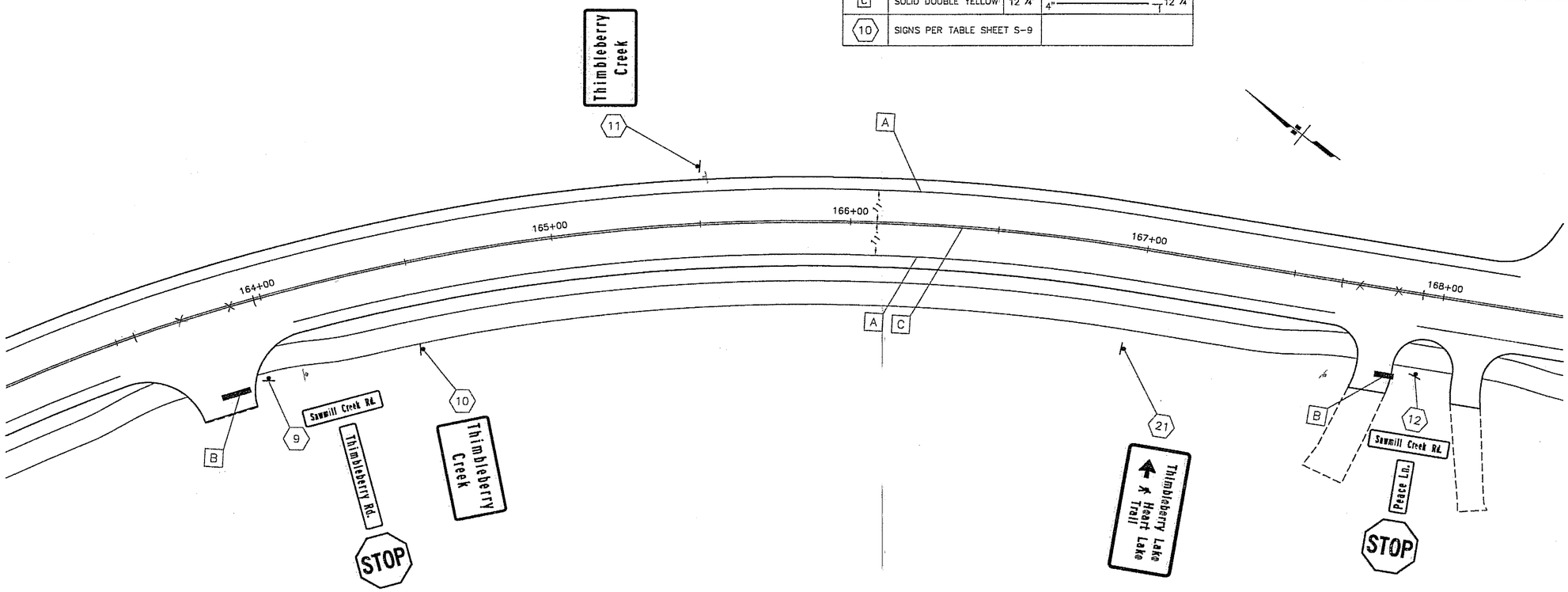
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S4	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" 4" 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\S05.dwg
Thu, 29/Dec/05 08:22AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8385
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

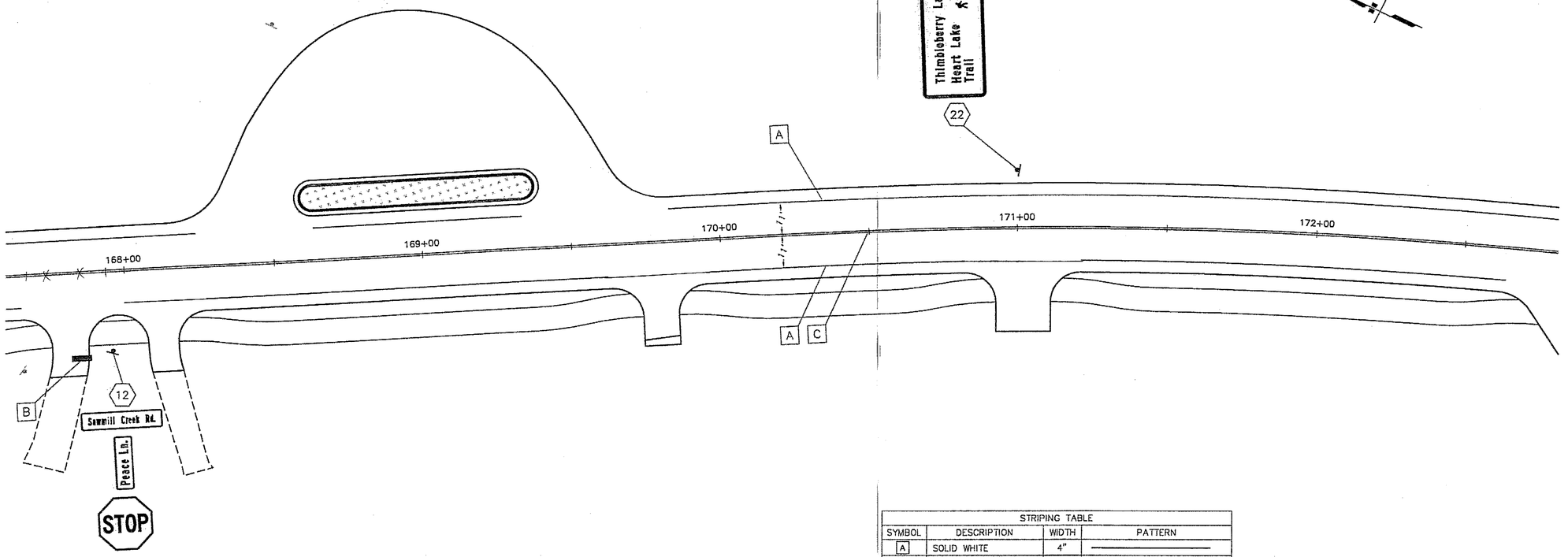
DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES STA. 158+50 TO STA. 168+00

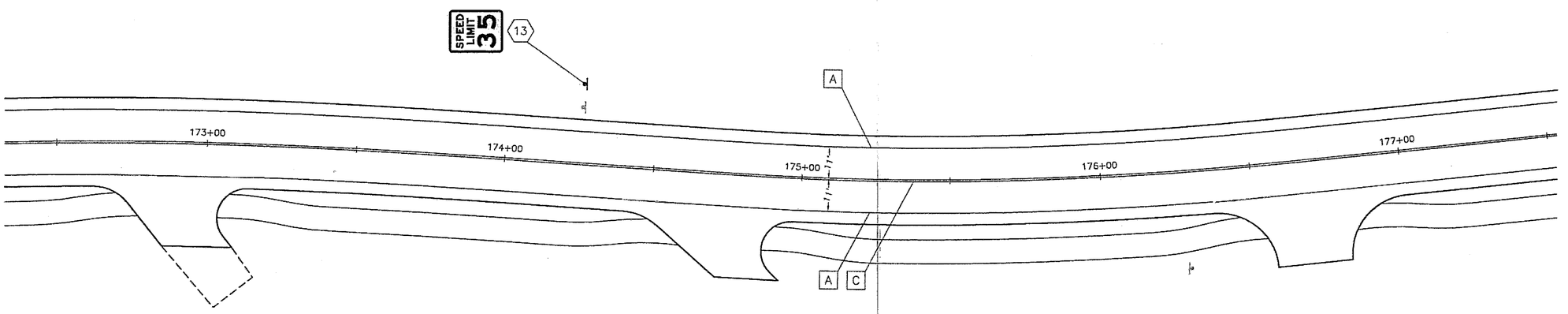
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S5	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" / 4" / 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



PATH:
I:\696201\DWGS\Sheets\S06.dwg
Thu, 29/Dec/05 08:22AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

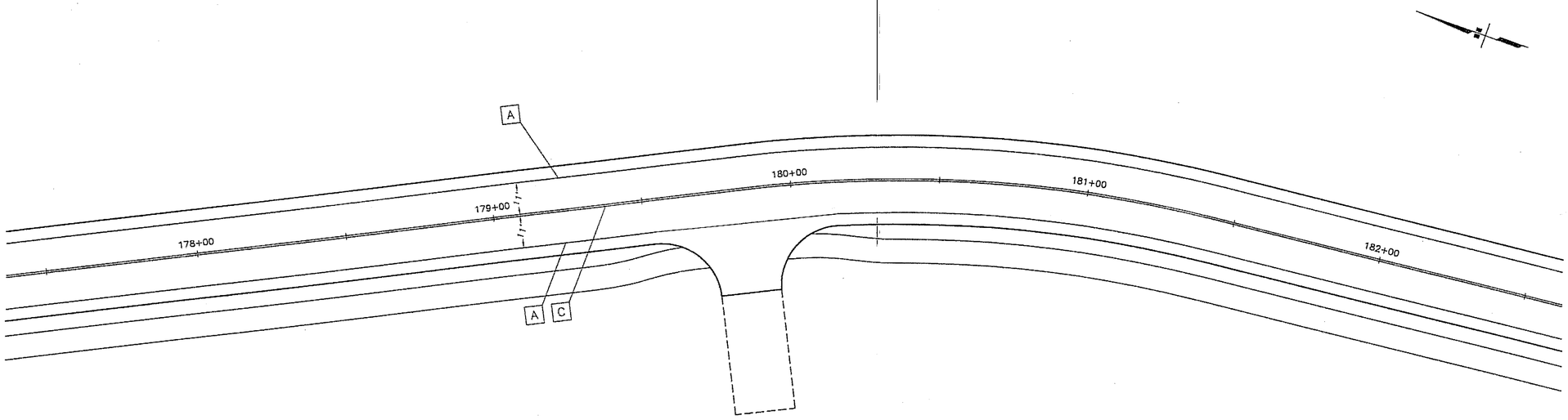
CHECKED BY: NCL

DRAWN BY: WJP

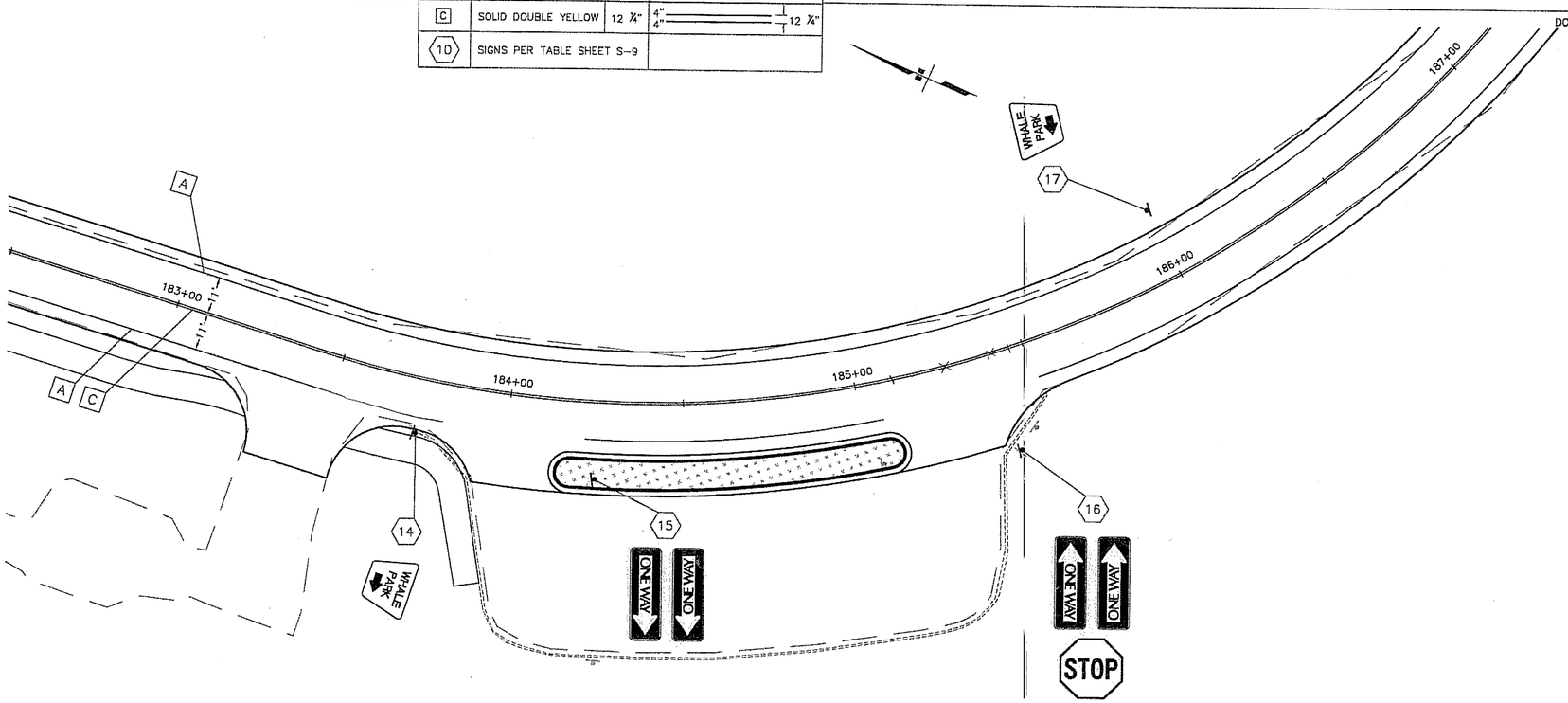
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES STA. 168+00 TO STA. 177+50

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S6	120



STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" / 4" 12 ¼"
10	SIGNS PER TABLE SHEET S-9		



DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS

PATH:
I:\695201\DWGS\Sheets\S07.dwg
Thu, 29/Dec/05 08:22AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA
49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

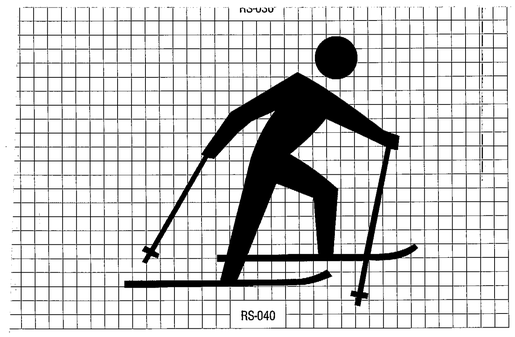
CHECKED BY: NCL

DRAWN BY: WJP

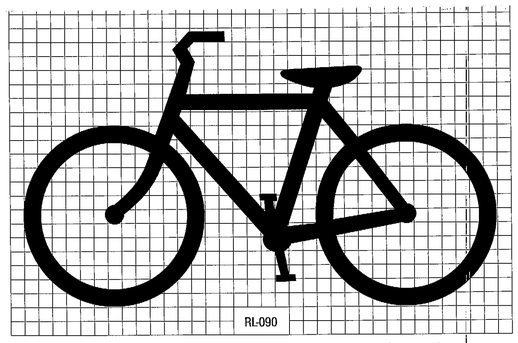
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES
STA. 177+50 TO
STA. 187+00

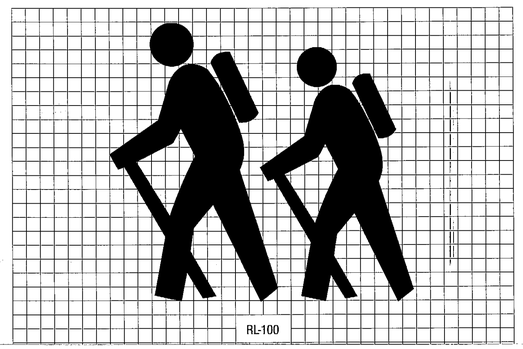
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S7	120

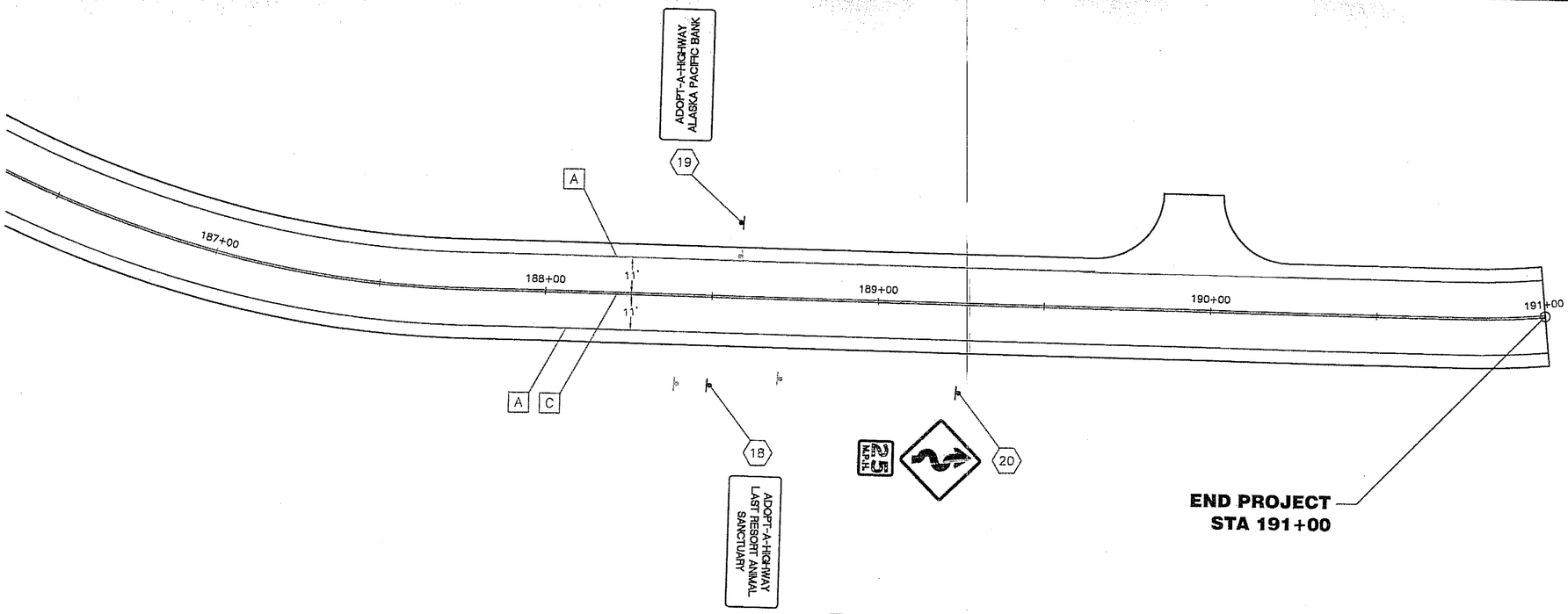


3-163



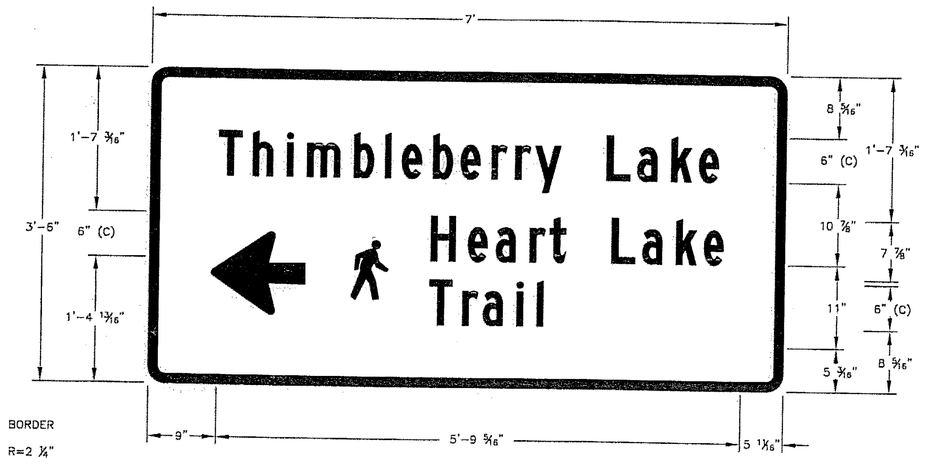
3-147





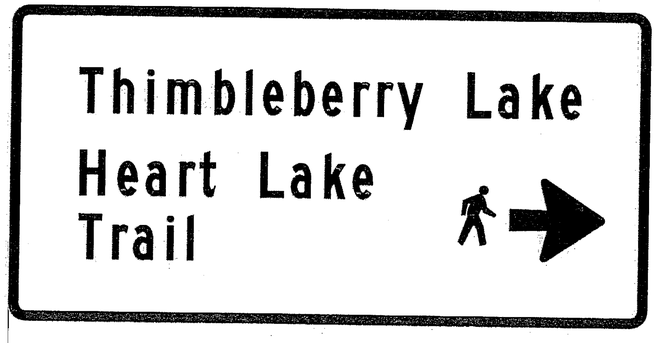
STRIPING TABLE			
SYMBOL	DESCRIPTION	WIDTH	PATTERN
A	SOLID WHITE	4"	
B	SOLID WHITE	24"	
C	SOLID DOUBLE YELLOW	12 ¼"	4" 4" 12 ¼"
10	SIGNS PER TABLE SHEET S-9		

DO NOT SCALE FROM THESE DRAWINGS, USE DIMENSIONS



BORDER
R=2 ¼"
TH=1 ¼"
LEGEND= WHITE
BACKGROUND= BROWN

21 SEE SHEET S5



22 SEE SHEET S6

PATH:
I:\696201\DWGS\Sheets\S08.dwg
Thu. 29/Dec/05 08:23AM bpaddack
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: WJP

STATE OF ALASKA 49TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: WJP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES STA. 187+00 TO STA. 191+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
S8	120

SIGN SUMMARY

SIGN NO.	STATION	OFFSETS LT	OFFSETS RT	CODE NO. ASDS	LEGEND	SIZE (INCHES) W	SIZE (INCHES) H	AREA SQ. FT	SIGN FACES (SEE NOTE 1)	POST TYPE	REMARKS
1	123+90	X		R1-1	STOP	30	30	6.25	SB	2½" PST	
				D3-1	SEAVIEW HTS	36	8	2.00	EB/WB		MOUNT ABOVE SIGN 1
				D3-1	SAWMILL CK RD	42	8	2.33	NB/SB		MOUNT ABOVE SIGN 1
2	124+20		X	R1-1	STOP	30	30	6.25	NB	2½" PST	
3	132+34		X	W1-5R	WINDING ROAD	36	36	9.00	EB	2½" PST	
				W13-1	25 MPH	24	24	4.00	EB		MOUNT BELOW SIGN 3
4	144+33		X	I-150	ADOPT A HIGHWAY	30	24	5.00	EB	2½" PST	
				PLAQUE	ALASKA PACIFIC BANK	30	12	2.50	EB		MOUNT BELOW SIGN 4
5	144+44	X		I-150	ADOPT A HIGHWAY	30	24	5.00	WB	2½" PST	
				PLAQUE	SERVICE TRANSFER INC	30	12	2.50	WB		MOUNT BELOW SIGN 5
6	147+50	X		W1-5L	WINDING ROAD	36	36	9.00	WB	2½" PST	
				W13-1	25 MPH	24	24	4.00	WB		MOUNT BELOW SIGN 6
7	149+49		X	R2-1	SPEED LIMIT 35	30	36	7.50	EB	2½" PST	
8	150+15		X	R1-1	STOP	30	30	6.25	NB	2½" PST	
				D3-1	BLUEBERRY LN	42	8	2.33	EB/WB		MOUNT ABOVE SIGN 8
				D3-1	SAWMILL CK RD	42	8	2.33	NB/SB		MOUNT ABOVE SIGN 8
9	163+95		X	R1-1	STOP	30	30	6.25	NB	2½" PST	
				D3-1	THIMBLEBERRY RD	48	8	2.67	EB/WB		MOUNT ABOVE SIGN 9
				D3-1	SAWMILL CK RD	42	8	2.33	NB/SB		MOUNT ABOVE SIGN 9
10	164+50		X	I-3	THIMBLEBERRY CREEK	66	36	16.50	EB	2 - 2½" PST	TWO - 2½" PST'S
11	165+50	X		I-3	THIMBLEBERRY CREEK	66	36	16.50	EB	2 - 2½" PST	TWO - 2½" PST'S
12	167+95		X	R1-1	STOP	30	30	6.25	NB	2½" PST	
				D3-1	PEACE LN	30	8	1.67	EB/WB		MOUNT ABOVE SIGN 12
				D3-1	SAWMILL CK RD	42	8	2.33	NB/SB		MOUNT ABOVE SIGN 12
13	174+25	X		R2-1	SPEED LIMIT 35	30	36	7.50	WB	2½" PST	
14	183+75		X	D7-105R	WHALE PARK (RIGHT ARROW)	48	36	12.00	EB	2½" PST	
15	184+25		X	R6-1R	ONE WAY (ARROW)	36	12	3.00	EB	2½" PST	
				R6-1L	ONE WAY (ARROW)	36	12	3.00	WB		MOUNT BACK TO BACK WITH SIGN 15
16	185+40		X	R1-1	STOP	30	30	6.25	NB	2½" PST	
				R6-1L	ONE WAY (ARROW)	36	12	3.00	EB		MOUNT ABOVE SIGN 16, BACK TO BACK
				R6-1R	ONE WAY (ARROW)	36	12	3.00	WB		MOUNT ABOVE SIGN 16, BACK TO BACK
17	186+00	X		D7-105L	WHALE PARK (LEFT ARROW)	48	36	12.00	EB	2½" PST	
18	188+50		X	I-150	ADOPT A HIGHWAY	30	24	5.00	EB	2½" PST	
				PLAQUE	LAST RESORT ANIMAL SANCTUARY	30	12	2.50	EB		MOUNT BELOW SIGN 18
19	188+50	X		I-150	ADOPT A HIGHWAY	30	24	5.00	WB	2½" PST	
				PLAQUE	ALASKA PACIFIC BANK	30	12	2.50	WB		MOUNT BELOW SIGN 19
20	189+25		X	W1-5L	WINDING ROAD	36	36	9.00	EB	2½" PST	
				W13-1	25 MPH	24	24	4.00	EB		MOUNT BELOW SIGN 20
21	167+00		X	SPECIAL	THIMBLEBERRY CREEK LAKE HEART LAKE TRAIL	84	42	24.5	EB	6X8W	
22	171+00	X		SPECIAL	THIMBLEBERRY CREEK LAKE HEART LAKE TRAIL	84	42	24.5	WB	6X8W	
						TOTAL SQ. FT		258			

SIGNING NOTES
1. FOR THE PURPOSE OF THIS TABLE, SAWMILL CREEK RD IS CONSIDERED AS RUNNING EAST AND WEST.
   TRAFFIC TRAVELING TOWARDS DOWNTOWN SITKA IS CONSIDERED WESTBOUND (WB).
   TRAFFIC TRAVELING TOWARDS BLUE LAKE IS CONSIDERED EASTBOUND (EB)
   TRAFFIC ENTERING FROM THE LEFT OR RIGHT IS CONSIDERED SOUTHBOUND SB) OR NORTHBOUND (NB) RESPECTIVELY.
2. SIGN LOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
3. EXISTING SIGNS SHALL BE SALVAGED OR REMOVED AND DISPOSED OF AS DIRECTED.
4. THE SALVAGING OR DISPOSAL OF EXISTING SIGNS SHALL BE CONSIDERED SUBSIDIARY TO ITEM 615(1) AND NO ADDITIONAL PAYMENT SHALL BE MADE.

PATH:
I:\696201\DWGS\Sheets\S09.DWG
Thu, 29/Dec/05 08:23AM bpaddock
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD PHASE II
SHOTGUN ALLEY TO WHALE PARK
& INDIAN RIVER BRIDGE REPLACEMENT
68023/68926
CBS UTILITY UPGRADE RSA NO 68783

SIGNING & STRIPING PLANS & SUMMARIES

PREPARED BY: USKH INC.

DESIGNED BY: CRF

STATE OF ALASKA
49 TH
Nathan C. Leigh
CE-8386
REGISTERED PROFESSIONAL ENGINEER
12-28-05

CHECKED BY: NCL

DRAWN BY: CRF

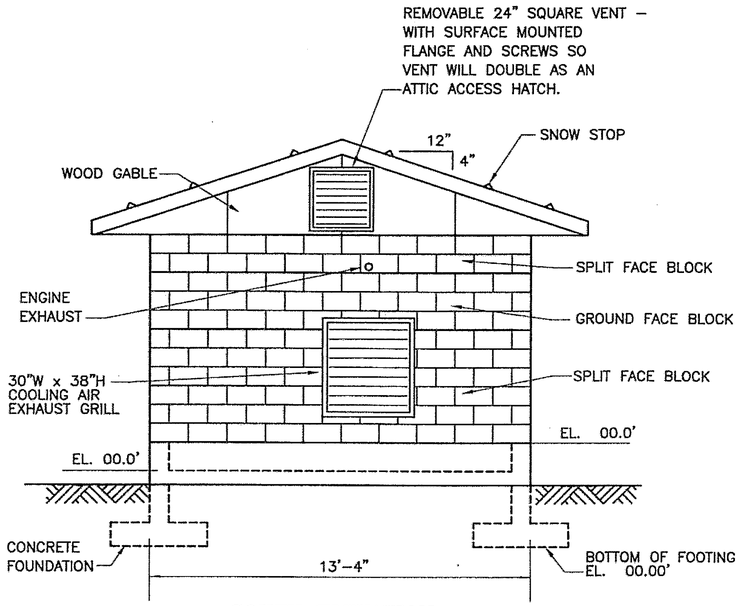
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

SIGNING & STRIPING PLANS & SUMMARIES

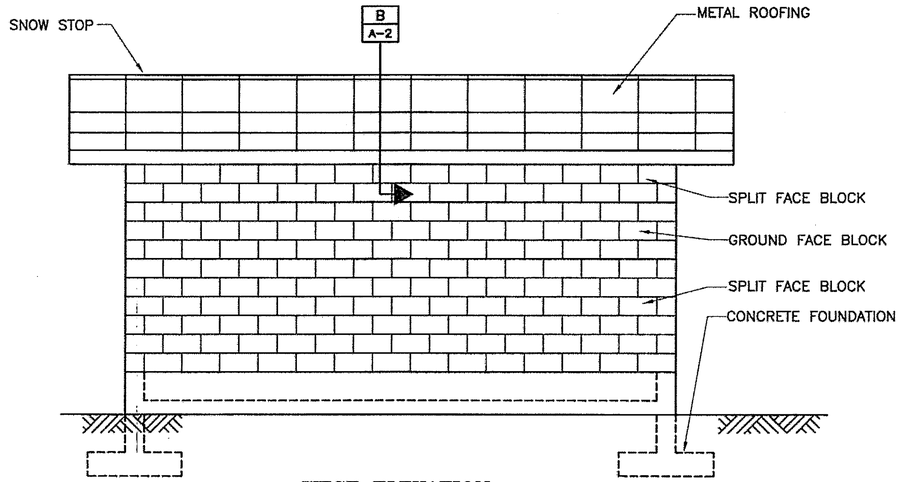
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

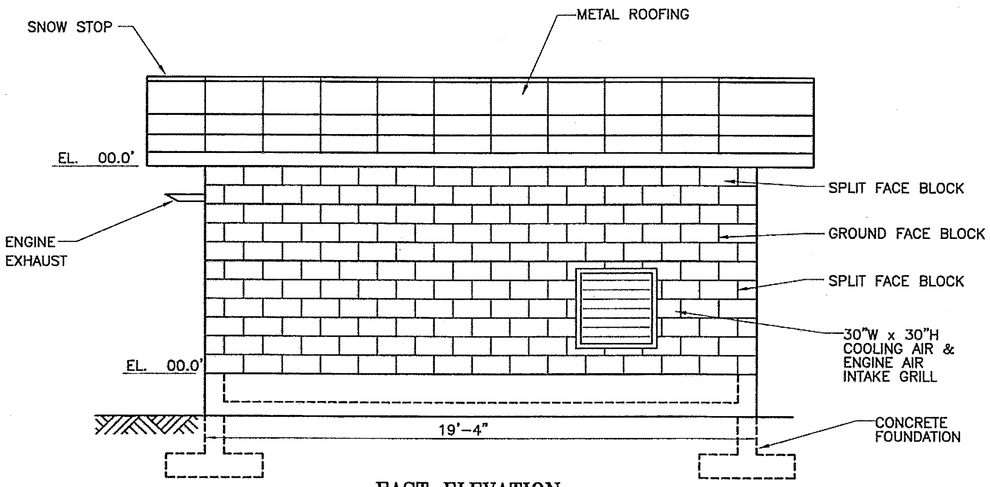
SHEET NUMBER	TOTAL SHEETS
S9	120



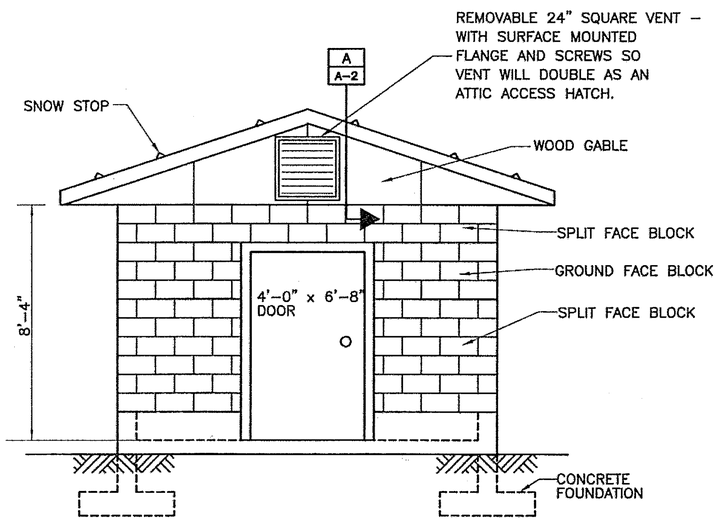
SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION

NOTE:
SEE ELECTRICAL DRAWINGS FOR LOCATIONS OF EXTERIOR LIGHTS, VENTS, INTAKE & EXHAUST GRILLS METERS, RECEPTACLES, ALARM HORN, CT CABINET, ETC.

1 0 5 10 FEET

DESIGN CRITERIA:

SNOW LOAD: 50psf
SEISMIC ZONE: 2B
WIND: 120 mph 3 SECOND GUSTS
OCCUPANCY GROUP: F–2
2003 INTERNATIONAL BUILDING CODE
CONCRETE DESIGN STRENGTH: 3,000 psi
REINFORCING STEEL GRADE: 60
MASONRY DESIGN STRENGTH (f'm): 1350 psi

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UA1.dwg

Tue, 20/Dec/05 03:45PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

GENERATOR BUILDING ARCHITECTURAL ELEVATIONS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 40TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

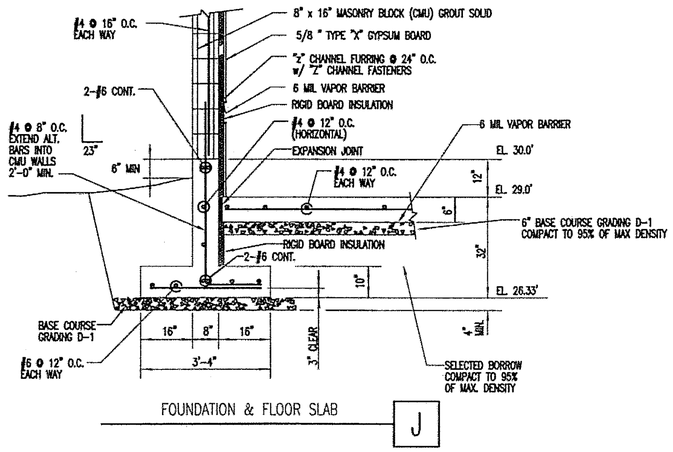
CBS UTILITIES GENERATOR BLDG ARCHITECTURAL ELEVATIONS

PROJECT DESIGNATION NUMBER
68023/68926

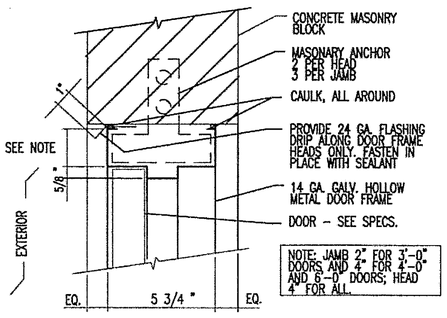
STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
UA1	120

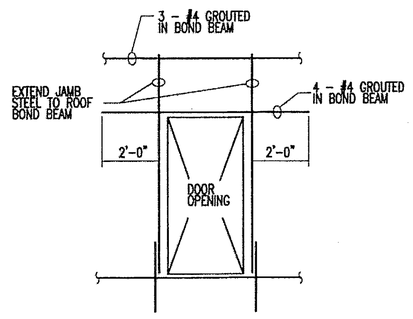
S:\12cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UA1.dwg, 12/20/2005 3:45:32 PM



FOUNDATION & FLOOR SLAB — J

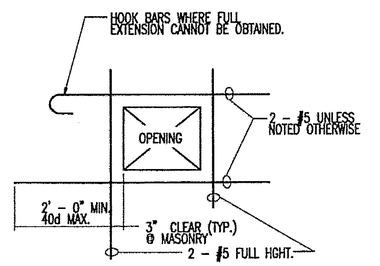


DOOR JAMB — E

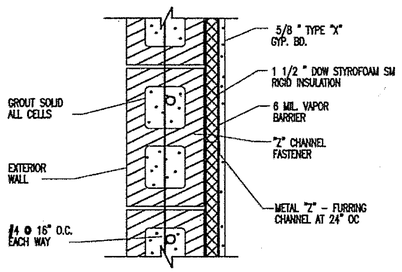


TYPICAL REINFORCEMENT AT DOOR OPENING — D

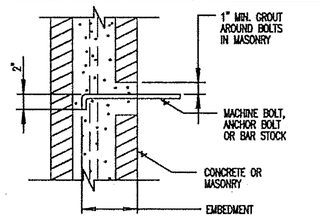
PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UA2.dwg



TYPICAL REINFORCEMENT AT MASONRY WALL OPENING — C



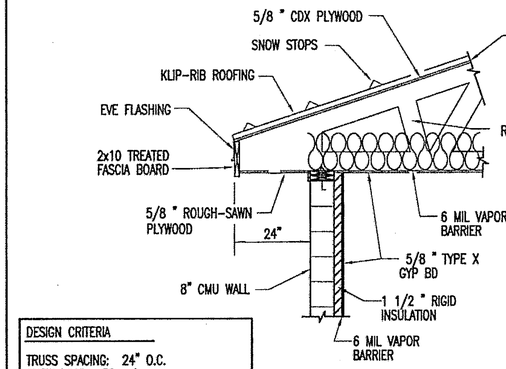
TYPICAL EXTERIOR 8" CMU WALL — H



SIZE	EMBEDMENT (MINIMUM)
1/2 " ø	4"
5/8 " ø	4"
3/4 " ø	5"
7/8 " ø	6"
1" ø	7"

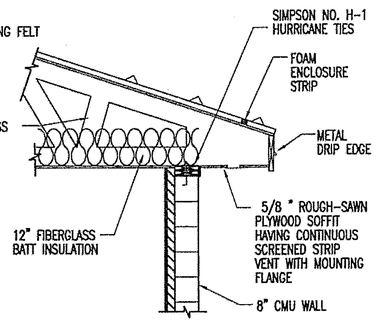
THIS EMBEDMENT SHALL BE TYPICAL UNLESS OTHERWISE NOTED

TYPICAL ANCHOR BOLT PLACING — F



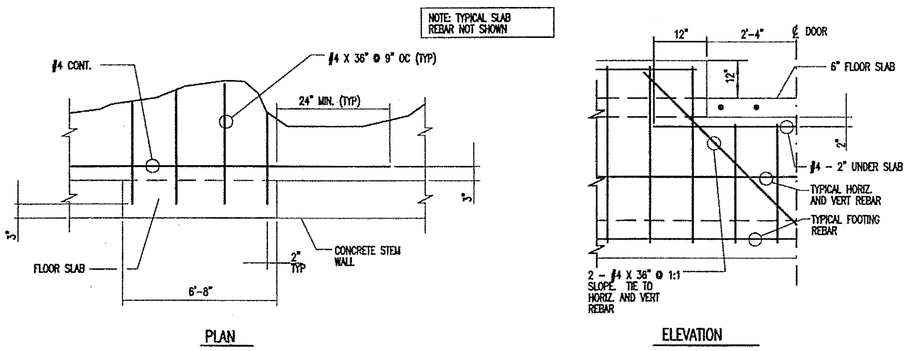
DESIGN CRITERIA

TRUSS SPACING: 24" O.C.
SNOW LOAD: 50 psf
DESIGN WIND SPEED: 100 mph
MINIMUM BOTTOM CORD: 2"x6"
SEISMIC ZONE: 2B, I=1.25



ROOF CROSS SECTION — B

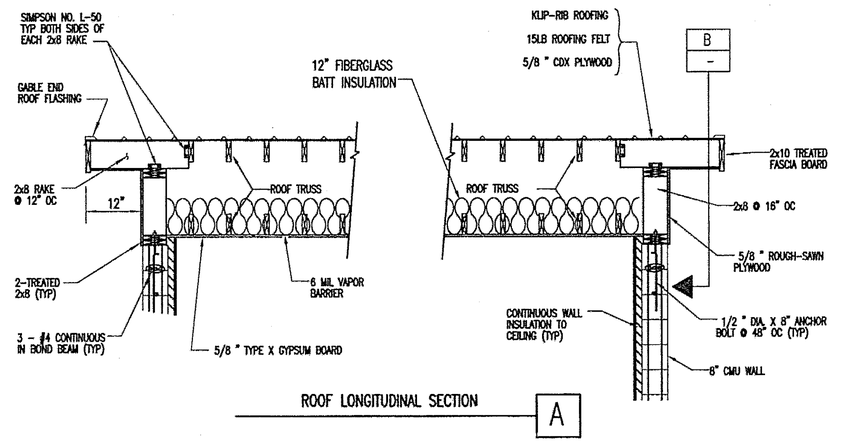
PROVIDE 22"x30" ATTIC ACCESS HATCH ON INSIDE CEILING, WITH CLEAR SPACE BELOW



PLAN

ELEVATION

DOOR SLAB AND FOOTING REINFORCEMENT — G



ROOF LONGITUDINAL SECTION — A

Tue, 20/Dec/05 03:46PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

GENERATOR BUILDING
STRUCTURAL DETAILS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES GENERATOR BLDG STRUCTURAL DETAILS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UA2	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UA2.dwg, 12/20/2005 3:46:04 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC1.dwg

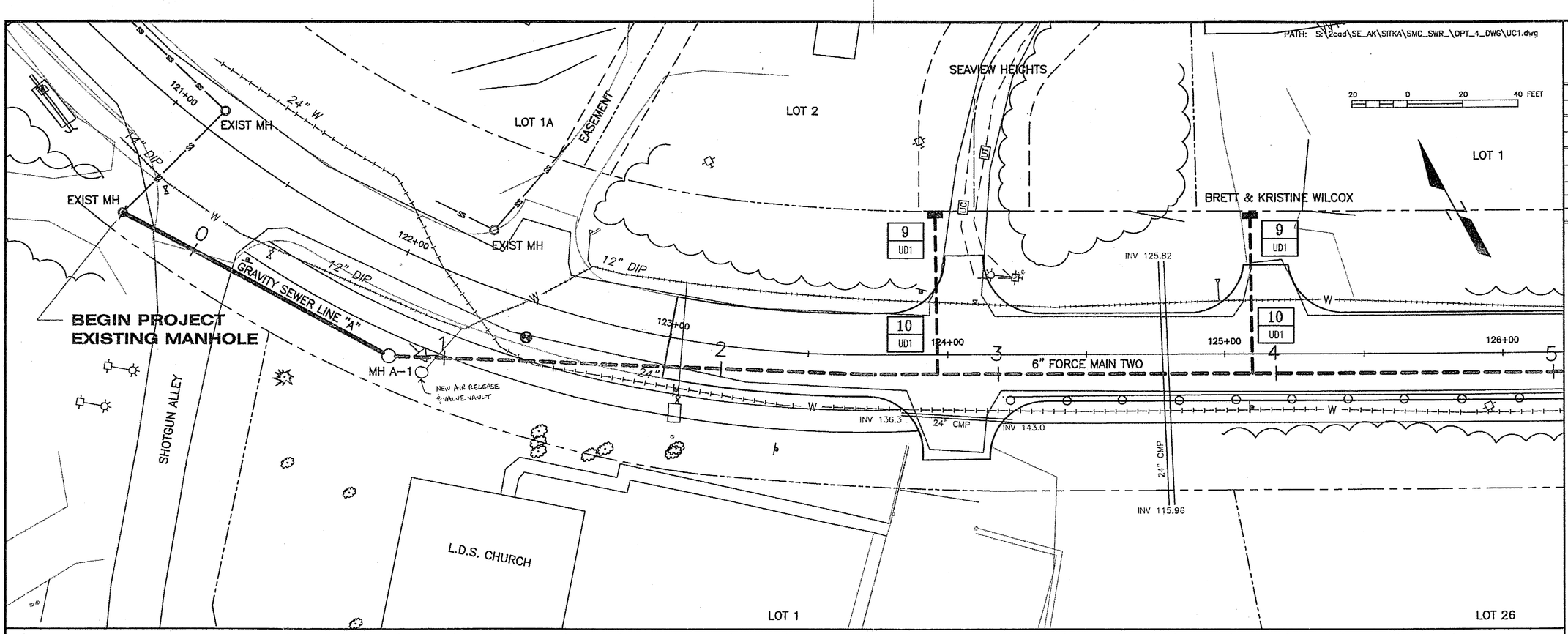
Tue, 20/Dec/05 03:57PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

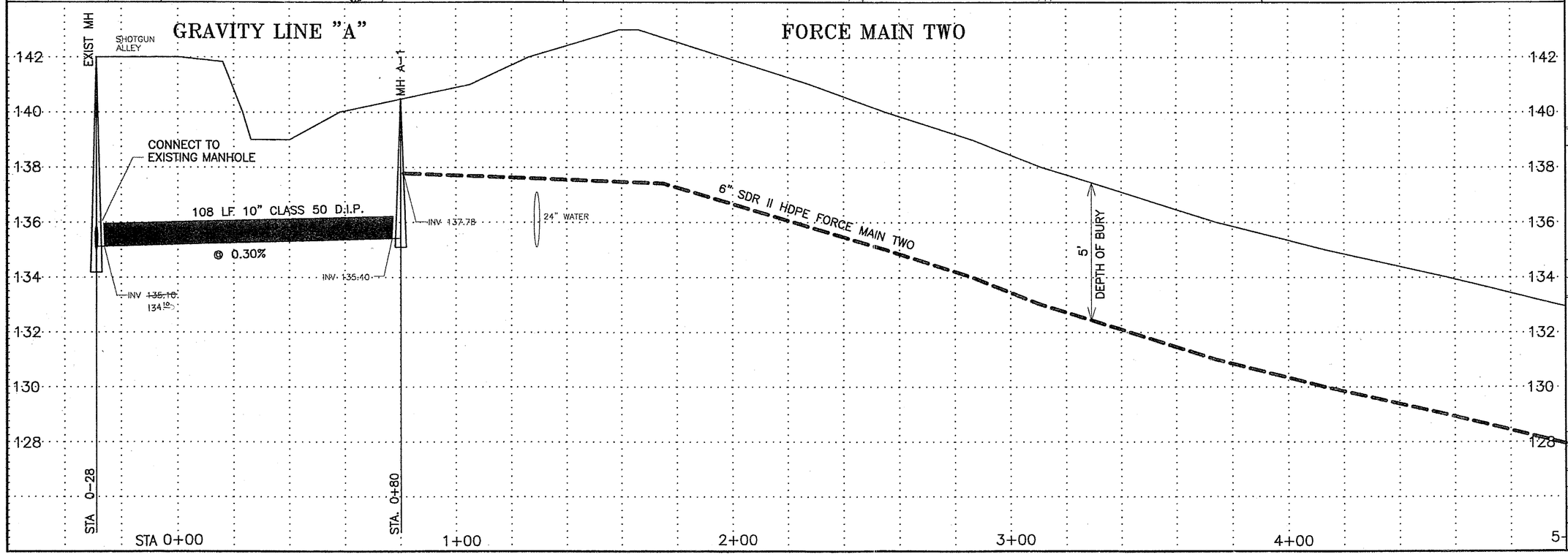
ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION





SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn

STATE OF ALASKA
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

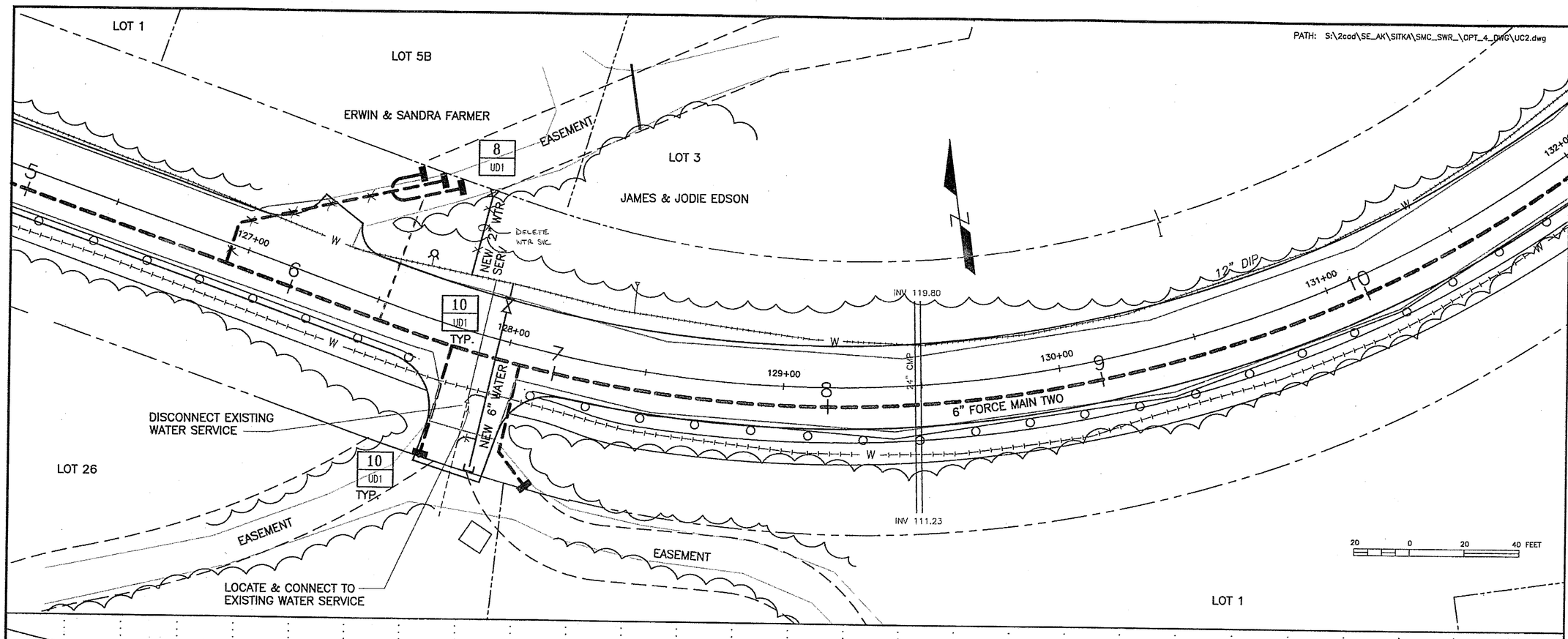
CHECKED BY: J. Dorn
DRAWN BY: RASIII/GDM

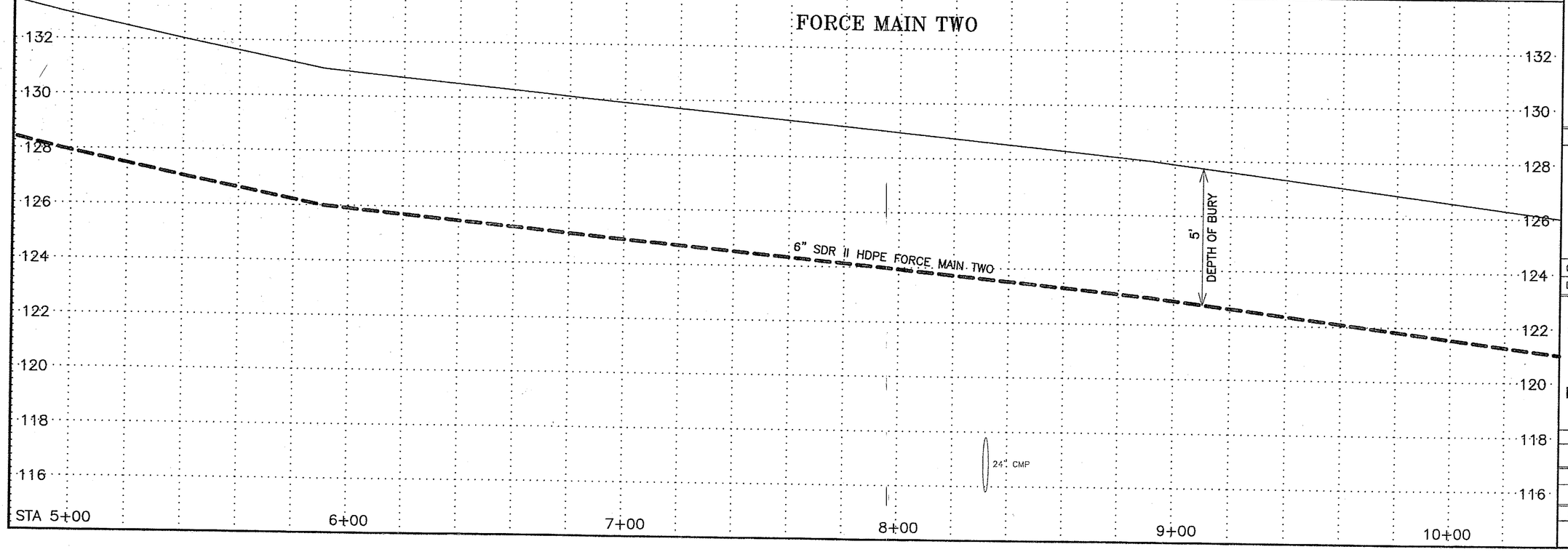
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 121+00 TO ROAD STA. 126+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC1	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC1.dwg, 12/20/2005 3:57:07 PM





PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC2.dwg

Tue, 20/Dec/05 03:58PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

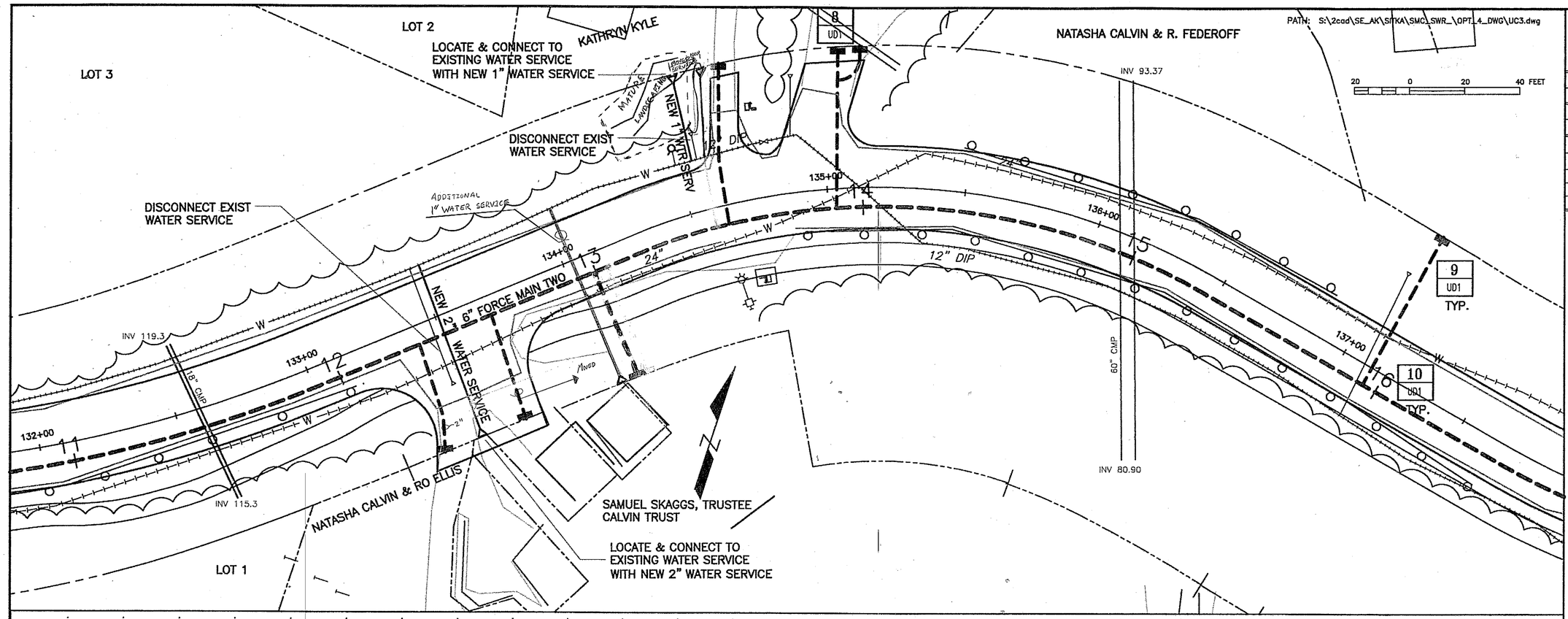
CBS UTILITIES
PLAN & PROFILE
RD. STA. 126+00 TO ROAD STA. 132+00

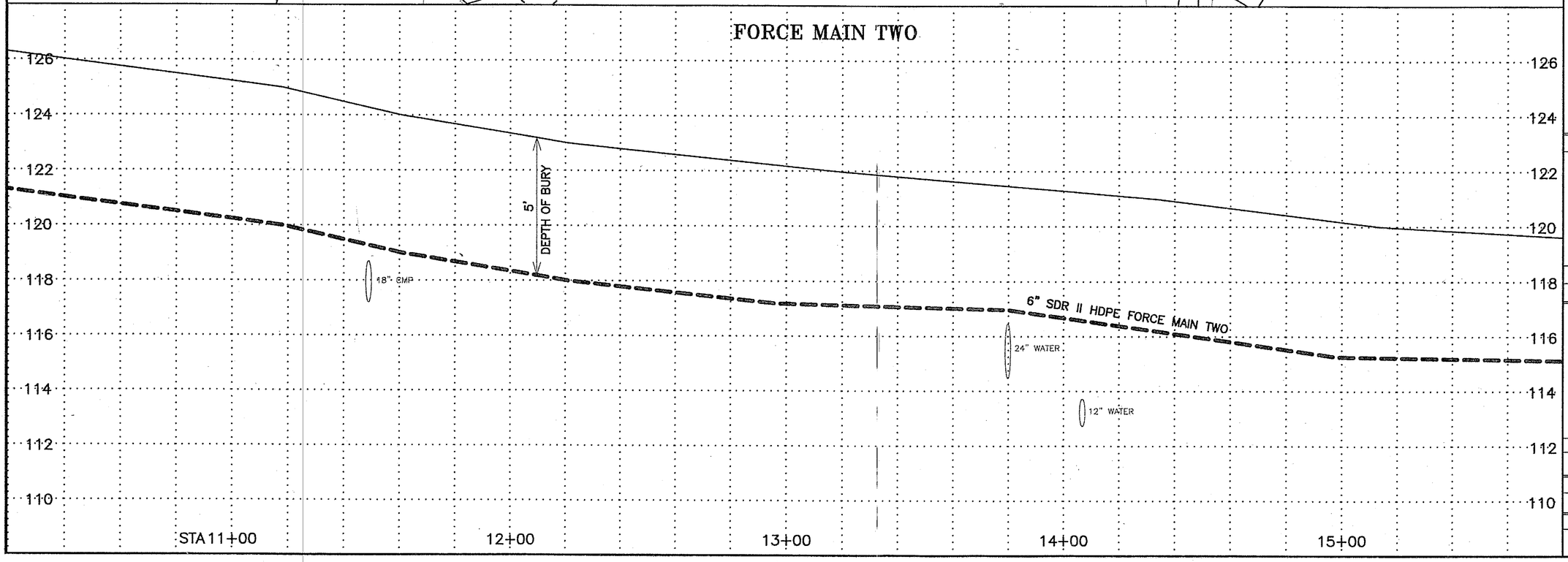
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC2	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC2.dwg, 12/20/2005 3:58:03 PM

134+54 LT
WATER SERVICE CONNECTION DOUBLES BACK FROM NEW VALVE BOX AT ROW EDGE TO ORIGINAL VALVE BOX LOCATION





Tue, 20/Dec/05 03:59PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn

STATE OF ALASKA
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER
4-9TH

CHECKED BY: J. Dorn
DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 132+00 TO ROAD STA. 137+50

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC3	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC3.dwg, 12/20/2005 3:59:39 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC4.dwg

Tue, 20/Dec/05 04:00PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

20 0 20 40 FEET

JAMES ALLAN & DAVID ALLAN

LOT 9

T.R.STEIN SUBDIVISION

HARRIET STEIN

16 17 18 19 20 21

138+00 139+00 140+00 141+00 142+00

12" CMP

NEW 1" WTR SERV

DELETE

MOVED

6" FORCE MAIN TWO

9 UD1 TYP.

10 UD1 TYP.

INV 108.60

INV 104.4

INV 99.1

18" CMP

12" CMP

OLD 6" CMP

NEW 6" WTR

2"

FORCE MAIN TWO

5' DEPTH OF BURY

6" SDR II HDPE FORCE MAIN TWO

18" CMP

120 118 116 114 112 110 108 106 104

STA 16+00 17+00 18+00 19+00 20+00 21+00

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 137+00 TO
ROAD STA. 142+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
UC4	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC4.dwg, 12/20/2005 4:00:30 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC5.dwg

Tue, 20/Dec/05 04:01PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

20 0 20 40 FEET

LOT 9

LOT 8

JAMES ALLAN & DAVID ALLAN

LOT 10

IRENE PEARSON

LOCATE & CONNECT TO EXISTING WATER SERVICE WITH NEW 1" WATER SERVICE

DISCONNECT EXISTING WATER SERVICE

9 UD1 TYP.

10 UD1 TYP.

INV 98.8

INV 96.0

INV 87.5

INV 104.4

INV 108.60

INV 99.1

INV 79.7

INV 85.05

INV 79.98

18" CMP

24" CMP

12" CMP

12" DIP

142+00

143+00

144+00

145+00

146+00

NEW 2" WATER SERVICE

NEW 1" WATER SERVICE

DELETE

MARY SARVELA

ARNOLD & DARLENE JOHNSON

N

FORCE MAIN TWO

6" SDR II HDPE FORCE MAIN TWO

18" CMP

24" WATER

12" WATER

48" CMP

DEPTH OF BURY 5'

21+00 22+00 23+00 24+00 25+00 26+00

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 6323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

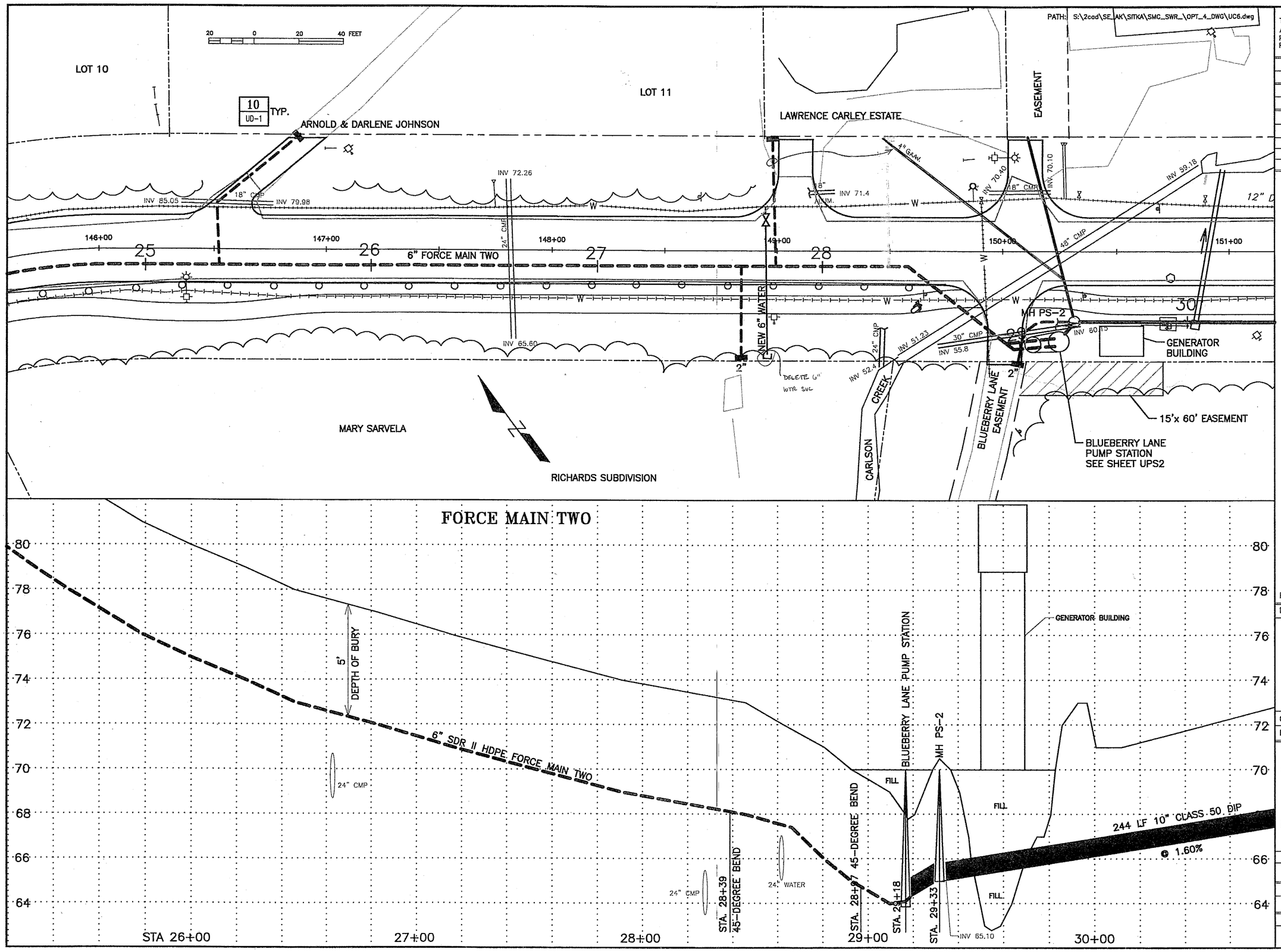
DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 142+00 TO ROAD STA. 146+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC5	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC5.dwg, 12/20/2005 4:01:21 PM



PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC6.dwg

Tue, 20/Dec/05 04:02PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
FORCE MAIN TWO
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 146+00 TO ROAD STA. 151+00

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC6	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC6.dwg, 12/20/2005 4:02:15 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC7.dwg

Tue, 20/Dec/05 04:05PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CARLEY
EASEMENT
M.O.BROWN JR. & RA DRAVEN
CREEK
CARLSON
M.O.BROWN JR. & RA DRAVEN
DISCONNECT EXISTING WATER SERVICE
LOCATE & CONNECT TO EXISTING WATER SERVICE WITH NEW 2" WATER SERVICE
EASEMENT
TOM CRANE
20 0 20 40 FEET
SVC HELD SHORT
BURIED CULVERT INV UNKNOWN
INV 70.40
18" CMP
INV 70.10
12" DIP
INV 72.76
24" CMP
INV 74.23
INV 77.4
18" CMP
INV 77.4
12" DIP
W
150+00
151+00
152+00
153+00
154+00
155+00
6" CLASS 50 DIP @ 0.4%
48" CMP
CBS STD DET 50-11 TYP.
6" CLASS 50 DIP
MH PS-2
INV 60.5
30" CMP
GENERATOR BUILDING
30
31
32
33
34
24"
MH C-1
ADD NEW 2" WYE
EXTRA 4" WYE OFF MAIN IN THIS AREA
MH C-2
PAUL & WANDA WHITE
BLUEBERRY LANE
2"
18" CMP
INV 69.63
INV 67.93
REMOVE & REPLACE USPS MAIL BOXES
15'x 60' EASEMENT
BLUEBERRY LANE PUMP STATION SEE SHEET UPS2
EXPOSE 12" D.I.P. IN THIS AREA & INSTALL MEGALUG JOINT RESTRAINT CLAMPS ON ALL JOINTS & FITTINGS. INSTALL JOINT RESTRAINT CLAMPS TWO PIPE JOINTS BEYOND FITTINGS.

GRAVITY SEWER LINE "C"

FORCE MAIN TWO
BLUEBERRY LANE PUMP STATION
GENERATOR BUILDING
MH PS-2
MH C-1
MH C-2
SEE UC-8
45-DEGREE BEND
STA. 28+97
STA. 29+18
STA. 29+33
STA. 31+76
STA. 34+11
FILL
FILL
FILL
244 LF 10" CLASS 50 DIP @ 1.60%
235 LF 10" CLASS 50 DIP @ 0.77%
INV 65.10
INV 69.00
INV 69.20
INV 71.00
INV 71.20
80
78
76
74
72
70
68
66
64
STA 29+00
30+00
31+00
32+00
33+00
34+00

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "C"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn
DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA.150+00 TO ROAD STA. 155+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC7	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC7.dwg, 12/20/2005 4:05:02 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UCB.dwg

Tue, 20/Dec/05 04:08PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

20 0 20 40 FEET

DANIEL & GLORIA PARRENT

LOT 15

LOT 16

GWEN WRIGHT

24" W

156+00

157+00

158+00

159+00

160+00

CBS STD DET 50-11 TYP.

35

12" DIP

36

37

38

39

W

INV 79.5 18" CMP INV 78.1

6" WATER SERVICE

6" CLASS 50 DIP

MH C-3

GRAVITY SEWER LINE "C"

OMH C-4

INV 81.5

6" FORCE MAIN ONE

INV 77.2

SPS MAILBOXES

MH D-5

CBS STD DET 50-12, TYP. 4" GRAVITY

EXPOSE 12" D.I.P. IN THIS AREA & INSTALL MEGALUG JOINT RESTRAINT CLAMPS ON ALL JOINTS & FITTINGS. INSTALL JOINT RESTRAINT CLAMPS TWO PIPE JOINTS BEYOND FITTINGS.

LOREN & VERNA PETERSON

INV 83.0

8" ORG

8" OPP

EASEMENT

ALAN & DIANA STEVENS

INV 74.4

JOHN FERYOK I & ANN LAPALME

4" GRAV.

WHITE

POR. LOT 17

HAAS SUBDIVISION

LOT 18

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINES "C" & "D"
PLAN & PROFILE

GRAVITY SEWER LINE "C"

FORCE MAIN ONE

GRAVITY SEWER LINE "D"

86
84
82
80
78
76
74
72
70

MH C-2
STA. 34+11
INV 71.20

261 LF 10" CLASS 50 DIP @ 1.26%

MH C-3
STA. 36+72
INV 74.5
INV 74.7

119 LF 10" CLASS 50 DIP @ 4.03%

MH C-4
STA. 37+91
INV 79.50

6" SDR II HDPE FORCE MAIN ONE

MH D-5
STA. 39+25
INV 73.12

SEE UC-9

35+00 36+00 37+00 38+00 39+00

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 40TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

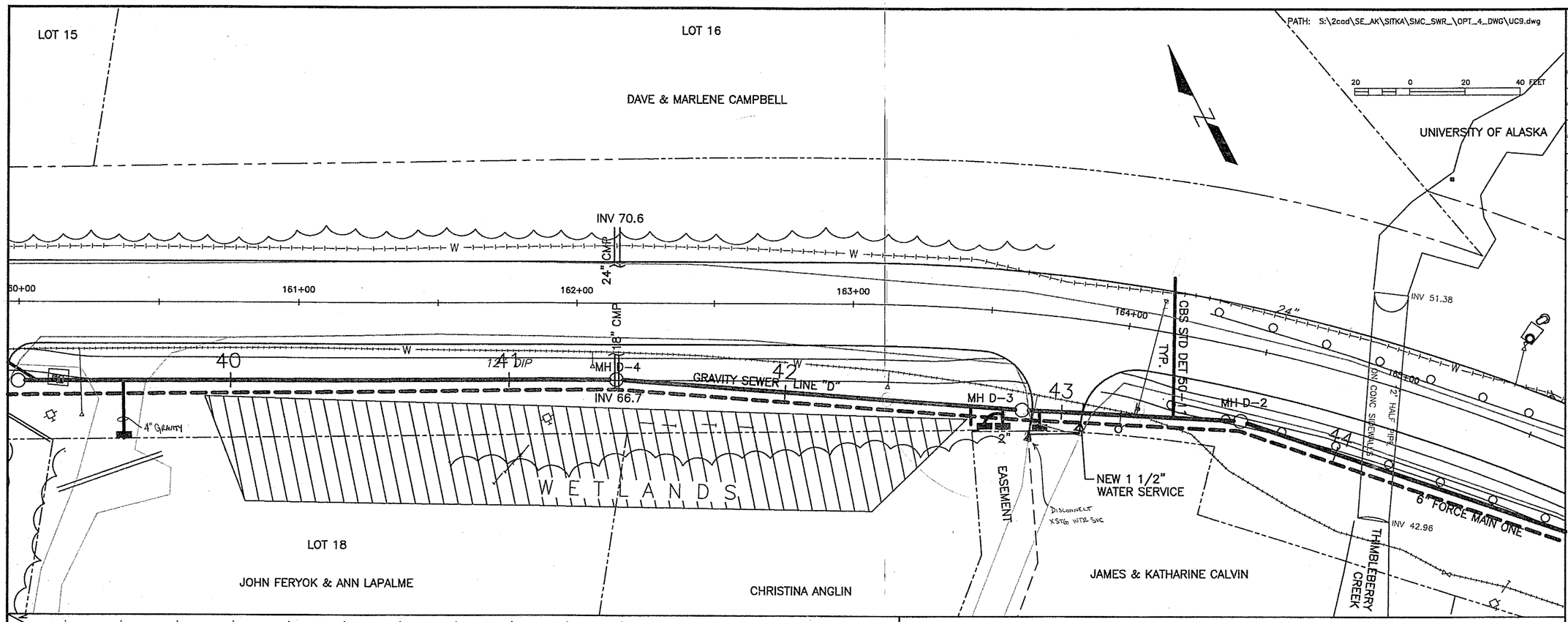
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

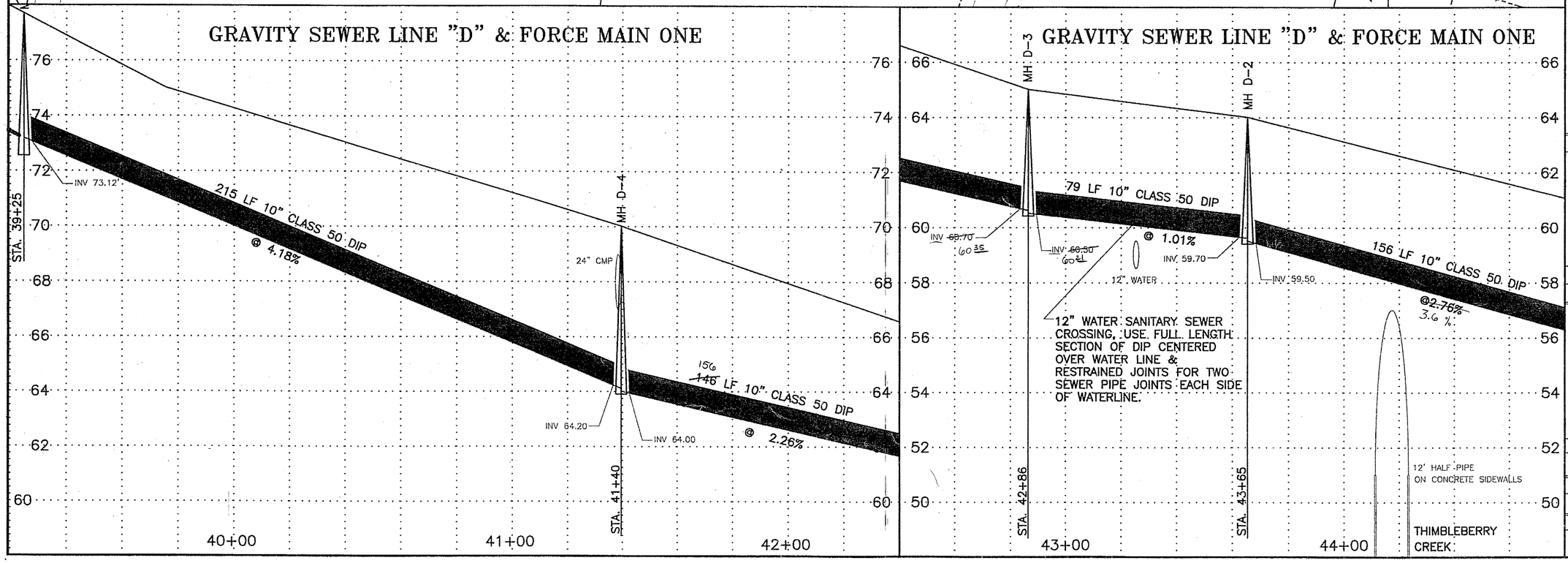
CBS UTILITIES
PLAN & PROFILE
RD. STA. 155+00 TO ROAD STA. 160+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC8	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UCB.dwg, 12/20/2005 4:08:28 PM





Tue, 20/Dec/05 04:10PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "D"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASill/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 160+50 TO
ROAD STA. 165+50

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC9	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC9.dwg, 12/20/2005 4:10:14 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC10.dwg

Tue, 20/Dec/05 03:37PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

UNIVERSITY OF ALASKA

UNIVERSITY OF ALASKA

INV 45.00

NEW 8" WATER SERVICE

12" CMP

INV 47.58

24"

30"

W

166+00

167+00

168+00

169+00

170+00

12"

24" CMP

45

46

47

48

49

MH PS-1

MH E-1

MH E-2

MH D-1

W

12" DIP

8" DIP

GRAVITY SEWER LINE "E"

INV 43.09

INV 41.29

40" CMP (BURIED)

CBS STD DET 50-11 TYP.

USPS MAIL BOXES

DISCONNECT EXISTING WATER SERVICE (NOTE: DISCONNECT ONLY AFTER PROPERTY OWNER HAS CONNECTED TO NEW WATER LINE AT STA. 170+98)

PEACE LANE PUMP STATION

2"

4" DIP EXTENDED FOR GRAV. OPTION

STEVEN JOHNSON

DAVID & DORIS CLARKE

HOBE LYNN

EASEMENT

JOHN WILEY

THIMBLEBERRY CREEK

LOT 1

LOT 4A

LOT 3A

LOT A

GRAVITY SEWER LINE "D"

GRAVITY SEWER LINE "E"

60
58
56
54
52
50
48
46
44

MH D-1

INV 55.20
54 04

INV 55.00
53 84

160 LF 10" CLASS 50 DIP @ 3.75%

12' HALF PIPE ON CONCRETE SIDEWALLS

THIMBLEBERRY CREEK

12" WATER

CBS STD DET 50-7

12" WATER SANITARY SEWER CROSSING, USE FULL LENGTH SECTION OF DIP CENTERED OVER WATER LINE & RESTRAINED JOINTS FOR TWO SEWER PIPE JOINTS EACH SIDE OF WATERLINE.

STA. 45+21

MH PS-1 & PEACE LN. PUMP STA.

CBS STD DET 50-7

INV. 49.00
50 16

STA. 46+81
167+40

84' @ 2.5%
48 LF 10" CLASS 50 DIP
@ 0.30%

INV 45.86
45 62

INV 46.00
47 70

STA. 47+29
168+24

24" CMP

INV 46.20
47 80

137 LF 10" CLASS 50 DIP @ 0.58%

133' @ 0.48%

24" CMP

MH E-2

INV 47.00
48 44

INV 47.20
48 55

STA. 48+66
169+57

154 LF 10" CLASS 50 DIP @ 0.91%
0.84%

45+00
46+00
47+00
48+00
49+00

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "E"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 165+50 TO ROAD STA. 170+75

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC10	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC10.dwg, 12/20/2005 3:37:36 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC11.dwg

USDA FOREST SERVICE

20 0 20 40 FEET

INV 52.1
INV 57.18
INV 65.5
W
171+00
172+00
173+00
174+00
175+00
176+00
18" CMP
24" CMP
18" CULVERT
MH E-3
MH E-4
50
51
52
53
54
55
INV 49.7
INV 52.66
INV 60.8
GRAVITY SEWER LINE "E"
6" CLASS 50 DIP
PLACED AT 1% SLOPE
U/G ELEC
POLE MOVED BY OTHERS
DELETE
NEW 2" WTR SERV
CBS STD DET 50-12
2" WTR SERV MOVED TO EASEMENT
MOVE TO EASEMENT
EASEMENT
LOT 4
LOT 5

GRAVITY SEWER LINE "E"

64 62 60 58 56 54 52 50 48

MH E-3
DROP MH E-4
18" CMP
24" CMP
CBS STD DET 50-7
INV 57.62 COVE
INV 53.50 58.52
INV 53.40
197 LF 10" CLASS 50 DIP @ 2.39% 1.70%
INV 48.50 49.85
INV 48.70 50.05
STA. 50+20
STA. 52+17
50+00 51+00 52+00

GRAVITY SEWER LINE "E"

78 76 74 72 70 68 66 64 62

335 LF 10" CLASS 50 DIP @ 4.33% 4.03%
53+00 54+00 55+00

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC11.dwg, 12/20/2005 3:38:38 PM

Tue, 20/Dec/05 03:38PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "E"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn
DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 170+75 TO ROAD STA. 176+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC11	120

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC12.dwg

Tue, 20/Dec/05 03:39PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

UNIVERSITY OF ALASKA

20 0 20 40 FEET

EXISTING AIR RELEASE VALVE.
INSTALL MANHOLE & INSULATED COVER
PER CBS DETAIL 60-11.
INSTALL MANHOLE COVER FLUSH WITH
BIKE PATH.

INV 75.8
24" CMP
INV 74.5
8" DIP
12" DIP
INV 68.50
24" CMP
24" CMP
INV 64.9 EXIST SD MH CB
INV 64.6
INV 57.18
MH E-5
MH E-6
MH E-7
GRAVEL SEWER LINE "E"
NEW FIRE HYDRANT
ROCK WALL
2"
GORDON BLUE
JOHN & DEBRA BROOKS
GAYLE & DIANA ERIKSON
W
UC
UCR
UT
UO
176+00
177+00
178+00
179+00
180+00
181+00
55
56
57
58
59
60
LOT 5
LOT 1
LOT 2A
LOT 2B
LOT 1

GRAVITY SEWER LINE "E"

84
82
80
78
76
74
72
70
68

MH E-5
MH E-6
MH E-7
24" CMP
~~318~~ 323 LF 10" CLASS 50 DIP
@ 0.56%
~~148~~ 135 LF 10" CLASS 50 DIP
@ 0.87%
INV 72.00
INV 72.20
INV 74.00
INV 74.20
INV 75.37
INV 75.57
STA. 55+52
STA. ~~58+75~~ 179+60 (42' RT)
STA. ~~60+10~~ 181+11 (32' RT)
24" CMP
55+00
56+00
57+00
58+00
59+00
60+00

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "E"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.
DESIGNED BY: J. Dorn

STATE OF ALASKA
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER
10TH

CHECKED BY: J. Dorn
DRAWN BY: RASill/GDM

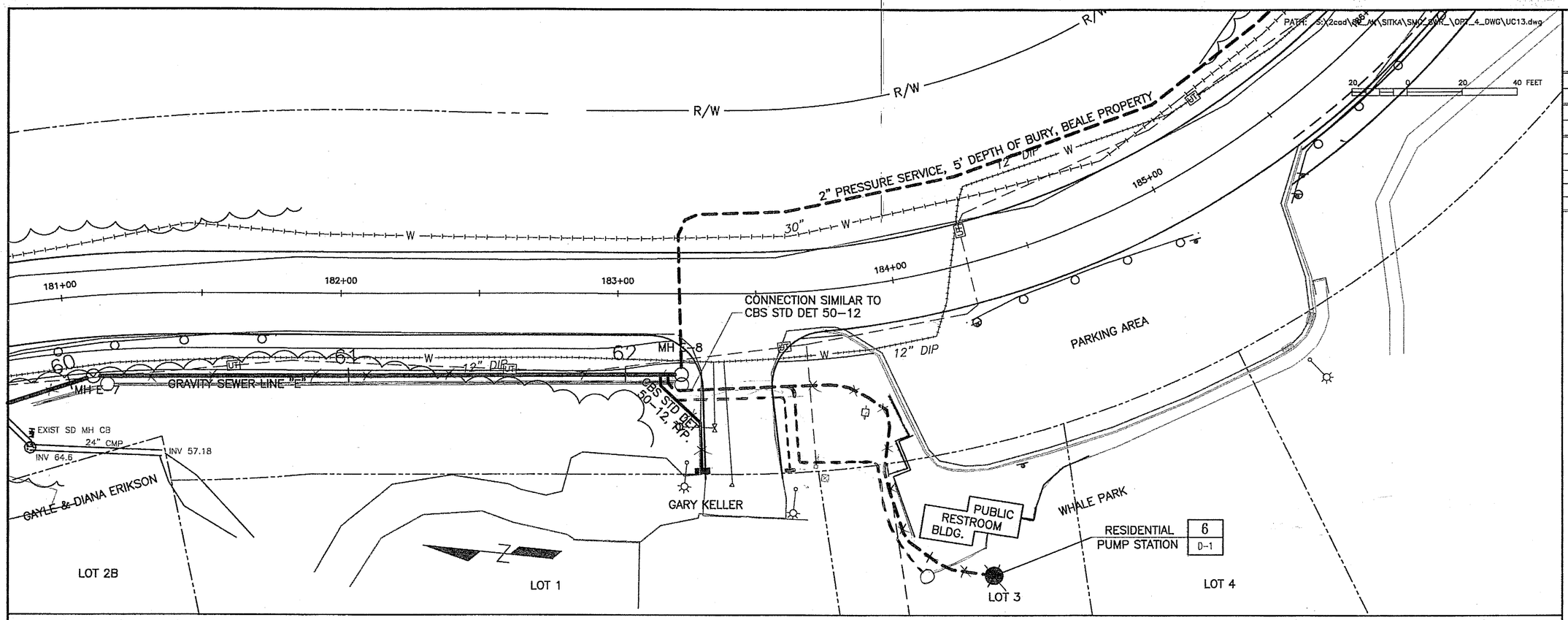
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

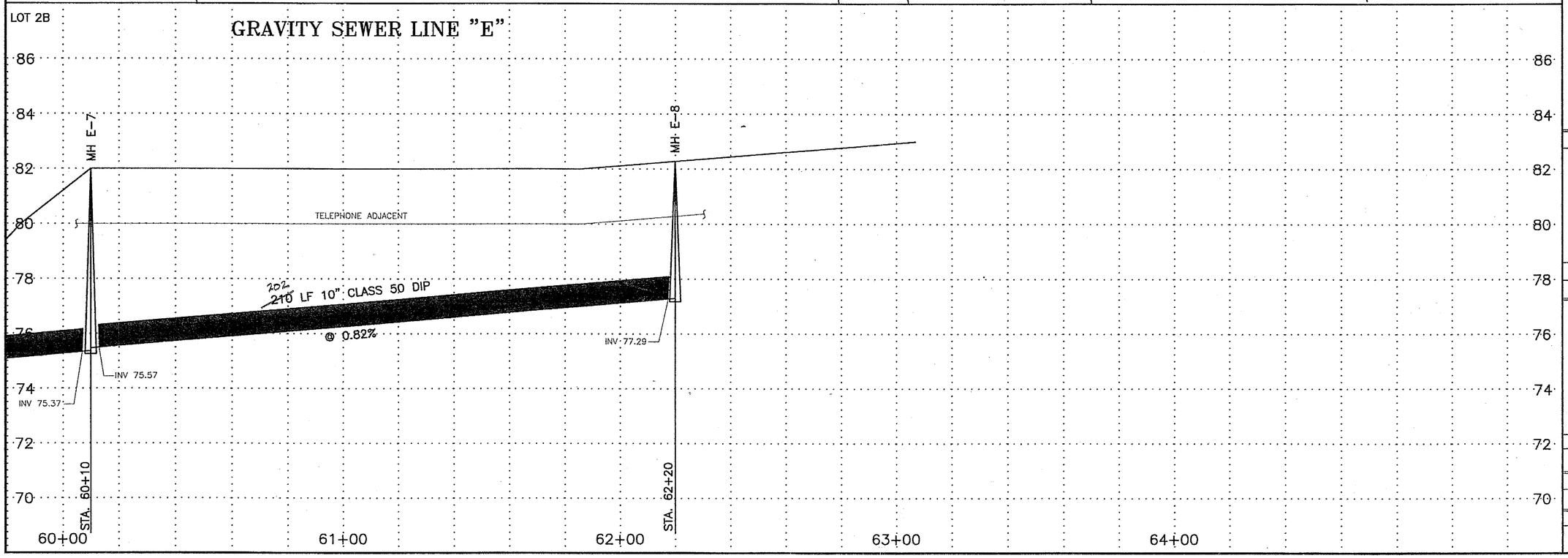
CBS UTILITIES
PLAN & PROFILE
RD. STA. 176+00 TO
ROAD STA. 181+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC12	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC12.dwg, 12/20/2005 3:39:44 PM





Tue, 20/Dec/05 03:40PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "E"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
40TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

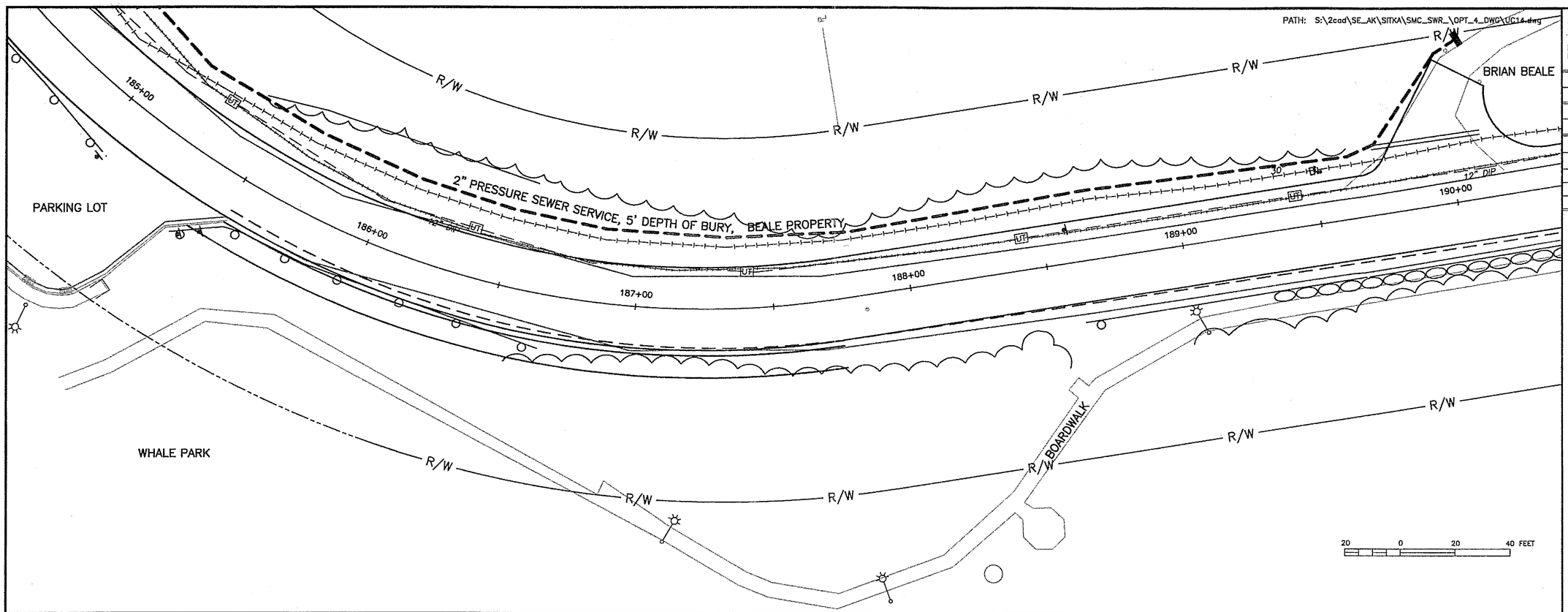
CBS UTILITIES
PLAN & PROFILE
RD. STA. 181+00 TO ROAD STA. 185+50

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC13	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC13.dwg, 12/20/2005 3:40:35 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC14.dwg



BRIAN BEALE PRESSURE SEWER SERVICE

86
84
82
80
78
76
74
72
70

Tue, 20/Dec/05 03:41PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
GRAVITY SEWER LINE "E"
PLAN & PROFILE

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
19TH
JAMES L. DORN
CE 8323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASill/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

CBS UTILITIES
PLAN & PROFILE
RD. STA. 185+00 TO
ROAD STA. 190+00

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UC14	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UC14.dwg, 12/20/2005 3:41:26 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UD1.dwg

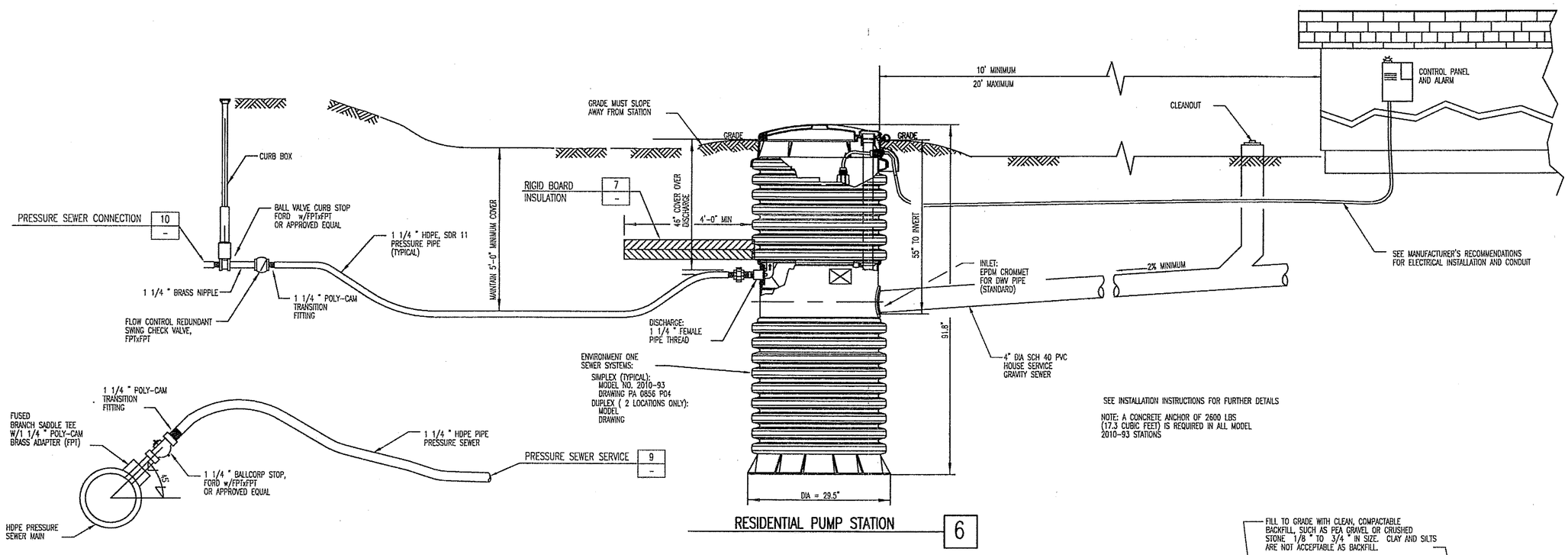
Tue, 20/Dec/05 03:42PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

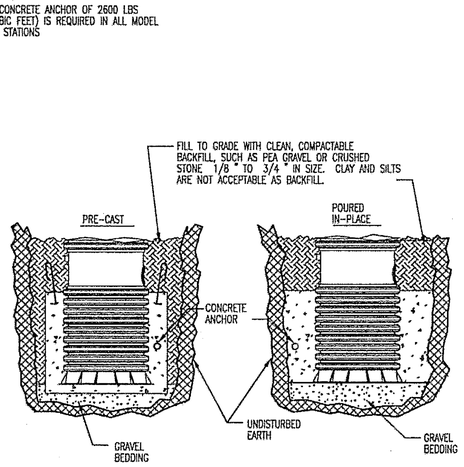
RECORD OF REVISIONS

No.	DATE	DESCRIPTION

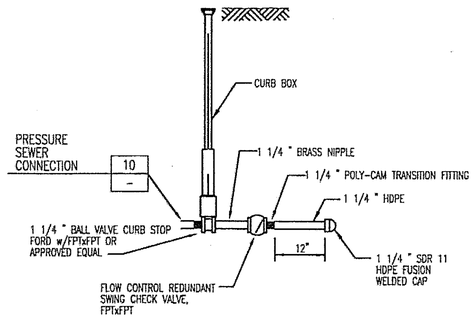


RESIDENTIAL PUMP STATION 6

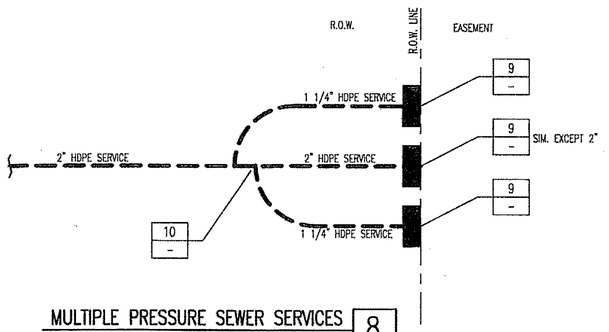
PRESSURE SEWER CONNECTION 10



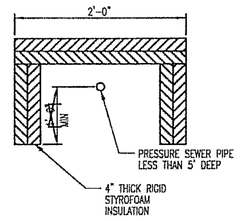
CONCRETE ANCHOR 5



PRESSURE SEWER SERVICE 9



MULTIPLE PRESSURE SEWER SERVICES AT EASEMENTS 8



RIGID BOARD INSULATION 7

DETAIL 1 (NOT USED)

DETAIL 2 (NOT USED)

DETAIL 3 (NOT USED)

DETAIL 4 (NOT USED)

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

PRESSURE SEWER DETAILS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PRESSURE SEWER DETAILS

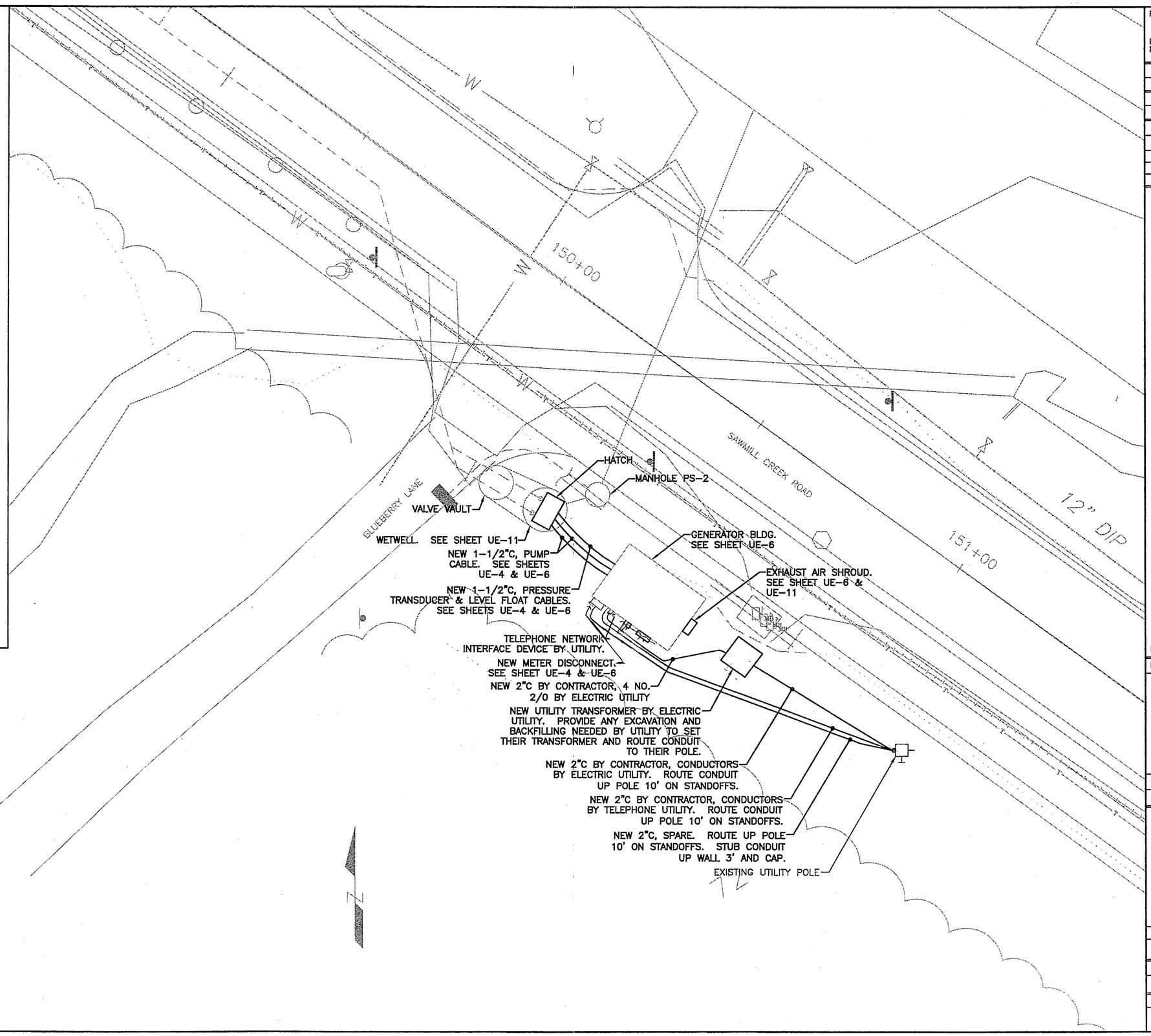
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UD1	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UD1.dwg, 12/20/2005 3:42:05 PM

LEGEND

TYP	TYPICAL
S	SINGLE POLE SWITCH
ATS	AUTOMATIC TRANSFER SWITCH
▽	GROUND BUS
J	JUNCTION BOX
GFI	GROUND FAULT INTERRUPTER
UG	UNDERGROUND
WP	WEATHERPROOF
GRS	GALVANIZED RIGID STEEL
BLDG	BUILDING
	DUPLEX RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE
GND	GROUND
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
REC	RECEPTACLE
W/	WITH
BLDG	BUILDING
A	WALL MOUNT LUMINAIRE. LETTER INDICATES TYPE.
	HOME RUN
	CONDUIT WITH CONDUCTORS. SEE PLANS FOR SIZE AND QUANTITY. EACH LARGE TIC INDICATES A NEUTRAL CONDUCTOR AND EACH SMALL TIC INDICATES A PHASE CONDUCTOR.
	PUMP
	SPECIAL USE RECEPTACLE
S.S.	STAINLESS STEEL
	CIRCUIT BREAKER
	RESETTABLE FUSE
HD	HEAVY DUTY
DBL	DOUBLE



PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

BLUEBERRY LANE PUMP STATION
ELECTRICAL SITE PLAN

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

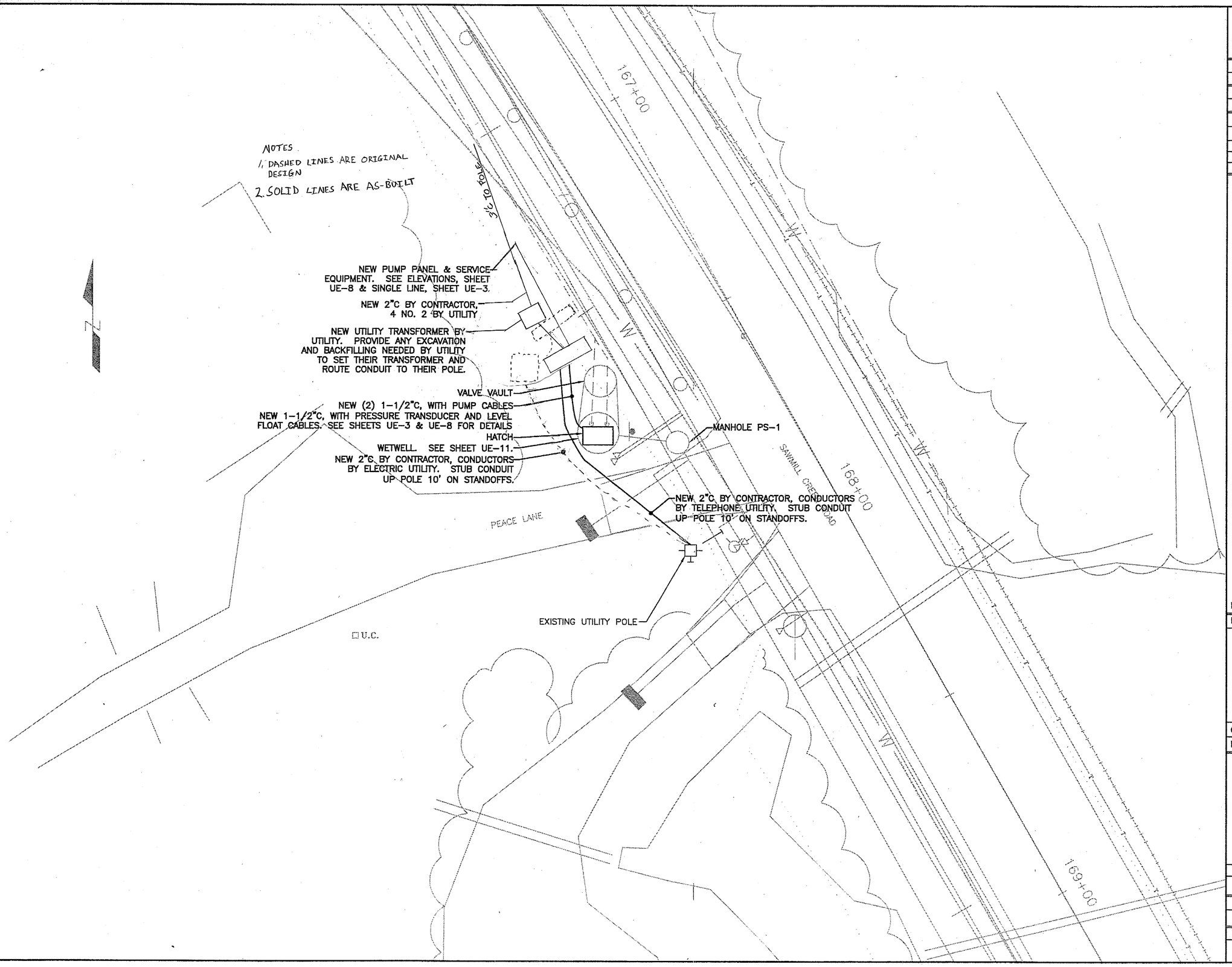
DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-1	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:34:40 PM,
\\server\HP LaserJet 5000 Series PS

NOTES
1. DASHED LINES ARE ORIGINAL DESIGN
2. SOLID LINES ARE AS-BUILT



PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PEACE LANE PUMP STATION
ELECTRICAL SITE PLAN

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA
49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-2	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:03 PM,
\\server\HP LaserJet 5000 Series PS

EQUIPMENT SCHEDULE

(1) PUMP CONTROL PANEL IN A STAINLESS STEEL NEMA 4X ENCLOSURE..

(2) 277/480V, 3ø, 4W, 100A COMBINATION METER/DISCONNECT. PROVIDE 7 JAW METER BASE WITH TEST BYPASS SAFETY SOCKET. PROVIDE WITH A STAINLESS STEEL NEMA 3R ENCLOSURE.

(3) CURRENT TRANSFORMER

(4) FUSE: (SHAWMUT A70P60 OR BUSS SPP–4F60) NO SUBSTITUTIONS.

(5) CIRCUIT BREAKER WITH REMOTE DISCONNECT HANDLE IN DOOR.

(6) CONTACTOR (NEMA 1).

(7) THERMAL OVERLOAD RELAY (SIZE PER MOTOR FULL LOAD AMPS).

(8) CAPACITOR CONTACTOR (30A, NEMA RATED).

(9) POWER FACTOR CORRECTION CAPACITOR WITH FAILED CELL INDICATORS IN NEMA 3R ENCLOSURES (2.5KVAR), SQUARE D PFCD4002RF. MOUNT ON RACK BEHIND PANEL. SEE SHEET UE–8.

(10) REDUCED VOLTAGE MOTOR STARTER WITH OVERLOAD: ALLEN BRADLEY SMC–2 (150–A24NB–H1–8B4–ND).

(11) SEWAGE LIFT PUMPS (7.5 HP).

(12) SAFETY SWITCH, 600V, 3 POLE, NEUTRAL BUS, DOUBLE THROW. PROVIDE IN A STAINLESS STEEL ENCLOSURE.

(13) SPLIT CASE STYLE SEAL–OFF. CROUSE HINDS EYSR SERIES.

(14) NOT USED.

(15) EYS CONDUIT SEAL. THE WET WELL IS A CLASS 1, DIV 1 AREA.

(16) 1–1/2"C, WITH PRESSURE TRANSDUCER AND LEVEL FLOAT SWITCH CABLES.

(17) 1–1/2"C, W/ PUMP CABLE.

(18) FUSE: 5 AMP, DUAL ELEMENT/TIME DELAY, CLASS RK1.

(19) JUNCTION BOX: EXPLOSION PROOF WITH SEALING HUB, CROUSE–HINDS EGJ422. SEAL CONDUIT TO CONTROL PANEL.

(20) 1–1/2"C, 3 NO. 12 (MOTOR FEEDERS), 4 NO. 12 (THERMAL DETECTOR & SEAL DETECTOR), & 1 NO. 12 GND.

(21) 1–1/2"C, PRESSURE TRANSDUCER AND LEVEL FLOAT SWITCH CABLES.

(22) PORTABLE GENERATOR RECEPTACLE. CROUSE HINDS AREA204126S22 WITH BACK BOX, ANGLE ADAPTER, AND REVERSE SERVICE INSULATORS.

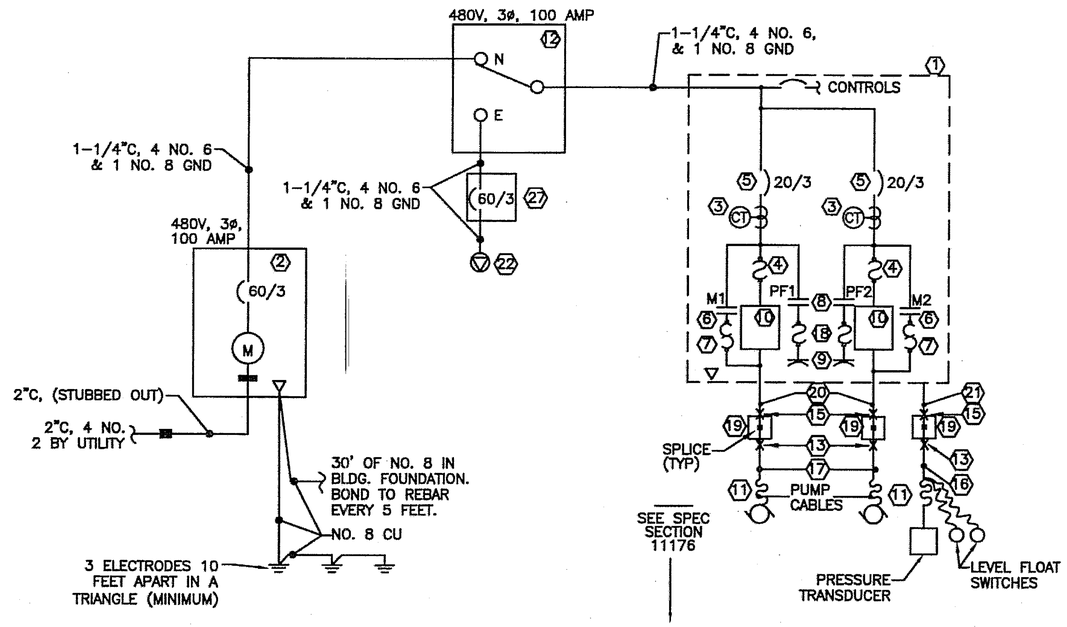
(23) NOT USED

(24) NOT USED.

(25) NOT USED.

(26) NOT USED.

(27) PORTABLE GENSET CIRCUIT BREAKER: MOLDED CASE CIRCUIT BREAKER IN STAINLESS STEEL NEMA 3R ENCLOSURE, 60 AMPS, 3 POLE AT 480V.



PEACE LANE LIFT STATION SINGLE LINE DIAGRAM
NO SCALE

NOTES:
1. PROVIDE STAINLESS STEEL CABLE GRIPS FOR CABLES IN WET WELL.

2. BOND NEUTRAL TO GROUND BUS AT METER/DISCONNECT. DO NOT BOND NEUTRAL TO GROUND AT ANY OTHER POINT.

3. MOUNT THE PRESSURE TRANSDUCER IN A 6" PVC SCHEDULE 80 CONDUIT IN THE WET WELL. SECURE THE CONDUIT TO THE SIDE OF THE WET WELL WITH STAINLESS STEEL CABLE STRAPS. EXTEND THE CONDUIT THE FULL HEIGHT OF THE WET WELL.

4. THE BOTTOM OF THE CONDUIT SHALL BE 12" OFF THE BOTTOM OF THE WET WELL. INSTALL TWO 1/4" STAINLESS STEEL ALL THREAD RODS 2" UP FROM THE BOTTOM OF THE CONDUIT AND SET THE TRANSDUCER ON THE RODS. PROVIDE A BUSHING AT THE TOP OF THE CONDUIT.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PEACE LANE
PUMP STATION SINGLE LINE

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER
68023/68926

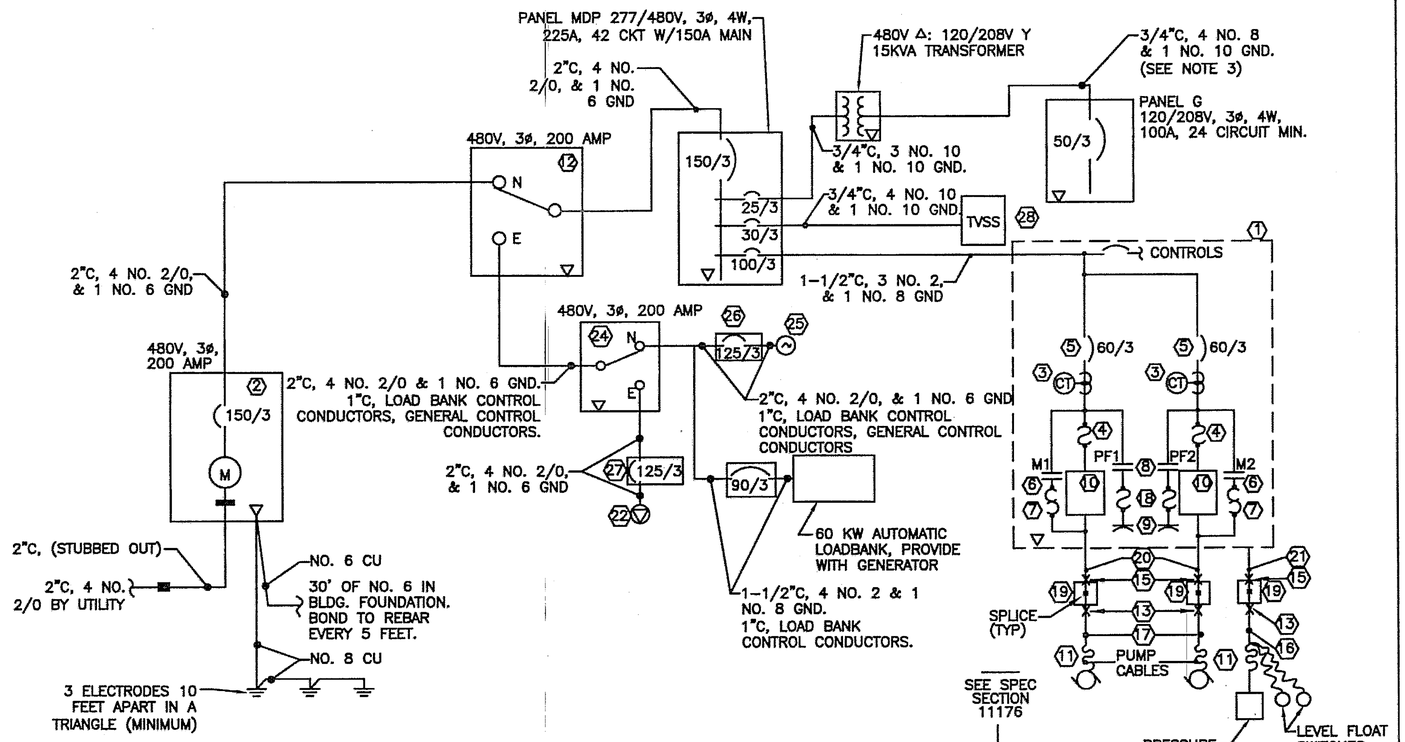
STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
UE-3	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:06 PM,
\\server\HP LaserJet 5000 Series PS

EQUIPMENT SCHEDULE

1. PUMP CONTROL PANEL.
2. 277/480V, 3ø, 4W, 200A COMBINATION METER/DISCONNECT. PROVIDE 7 JAW METER BASE WITH BYPASS SAFETY SOCKET. PROVIDE IN A STAINLESS STEEL ENCLOSURE.
3. CURRENT TRANSFORMER
4. FUSE: (SHAWMUT A70P100OR BUSS SPP-4F100) NO SUBSTITUTIONS.
5. CIRCUIT BREAKER WITH REMOTE DISCONNECT HANDLE IN DOOR.
6. CONTACTOR (NEMA 2).
7. THERMAL OVERLOAD RELAY (SIZE PER MOTOR FULL LOAD AMPS).
8. CAPACITOR CONTACTOR (30A, NEMA RATED).
9. POWER FACTOR CORRECTION CAPACITOR W/ FUSES & FAILED CELL INDICATORS (6KVAR), SQUARE D PFCD4006F. MOUNT ON WALL NEXT TO PANEL.
10. REDUCED VOLTAGE MOTOR STARTER WITH OVERLOAD: ALLEN BRADLEY SMC-2 (150-A40NB-H2-8B4-ND).
11. SEWAGE LIFT PUMPS (18 HP).
12. AUTOMATIC TRANSFER SWITCH: 3 POLE, 4 WIRE. DELAY IN NEUTRAL POSITION DURING TRANSFER.
13. SPLIT CASE STYLE SEAL OFF. CROUSE HINDS EYSR SERIES.
14. NOT USED.
15. EYS CONDUIT SEAL. THE WET WELL IS A CLASS 1, DIV 1 AREA.
16. 1-1/2"C, WITH PRESSURE TRANSDUCER AND LEVEL FLOAT SWITCH CABLES.
17. 1-1/2"C, W/PUMP CABLE.
18. FUSE: DUAL ELEMENT/TIME DELAY, CLASS RK1, 15 AMP.
19. JUNCTION BOX: EXPLOSION PROOF WITH SEALING HUB, CROUSE-HINDS EGJ422. SEAL CONDUIT TO CONTROL PANEL.
20. 1-1/2"C, 3 NO. 6 (MOTOR FEEDERS), 4 NO. 12 (THERMAL DETECTOR & SEAL DETECTOR), & 1 NO. 8 GND.
21. 1-1/2"C, PRESSURE TRANSDUCER AND LEVEL FLOAT SWITCH CABLES.
22. PORTABLE GENERATOR RECEPTACLE. CROUSE HINDS AREA204126S22 WITH BACK BOX, ANGLE ADAPTER, AND REVERSE SERVICE INSULATORS. MOUNT PHENOLIC LABEL ON BUILDING SIDING ABOVE RECEPTACLE. ENGRAVE VOLTAGE & PHASE ON LABEL WITH 1" HIGH MIN. LETTERS.
23. NOT USED
24. GENERATOR SELECTOR SWITCH: DOUBLE THROW, 3 POLE, 4 WIRE.
25. GENERATOR: 80 KW AT 0.8PF, 277/480V, 3ø, 4 WIRE. PROVIDE WITH 60 KW AUTOMATIC LOADBANK WITH 5 KW LOAD STEPS. PROVIDE CIRCUIT BREAKER FOR LOAD BANK. PROVIDE THE GENERATOR WITH THREE CUSTOMER CONFIGURABLE RELAYS TO CONTROL THE LOAD BANK AFTER THE GENERATOR HAS RUN FOR 3 MINUTES AND DURING THE COOL DOWN CYCLE. MOUNT LOAD BANK CIRCUIT BREAKER NEXT TO GENERATOR CIRCUIT BREAKER ON THE SIDE OF THE GENERATOR. PROGRAM THE LOAD BANK TO OPERATE WHENEVER GENERATOR IS RUNNING EXCEPT DURING COOL DOWN. RUN CONTROL CONDUCTORS TO GENERATOR RELAYS TO DUMP LOAD BANK DURING COOL DOWN. PROVIDE CTS IN AUTOMATIC TRANSFER SWITCH AND ALL NECESSARY CONTROL WIRING TO ATS & GENERATOR TO START THE LOAD BANK AUTOMATICALLY WHEN THE GENERATOR HAS BEEN RUNNING FOR 3 MINUTES. PROVIDE AUTOMATIC LOAD LEVELING TO MAINTAIN A 50 KW LOAD ON THE GENERATOR WHEN THE LOADBANK IS ON. DISCONNECT THE LOAD BANK FROM THE GENERATOIR DURING THE GENERATOR COOL DOWN. PROVIDE 15 MINUTES MINIMUM OF GENERATOR COOL DOWN INCLUDING COOL DOWN OF LOAD BANK ELEMENTS. PROVIDE ALL CONDUIT, WIRING, AND PROGRAMMING REQUIRED.
26. GENSET MAIN CIRCUIT BREAKER: MOLDED CASE CIRCUIT BREAKER IN NEMA 1 ENCLOSURE, 125 AMPS, 3 POLE AT 480V.
27. PORTABLE GENSET CIRCUIT BREAKER: MOLDED CASE CIRCUIT BREAKER IN NEMA 1 ENCLOSURE, 125 AMPS, 3 POLE AT 480V.
28. TRANSIENT VOLTAGE SUPPRESSION DEVICE. 80KA SURGE CURRENT(8X20ms) PER PHASE, PROTECTION MODES L-N, L-L, N-G. LIEBERT All277Y111RKE. PROVIDE LED INDICATORS AND ALARM CONTACTS. PROVIDE 50 OHM EMI/RFI ATTENUATION 10 KHZ-100 MHZ 60 DB.
29. AUTOMATIC LOAD BANK CIRCUIT BREAKER IN NEMA 1 ENCLOSURE.



BLUEBERRY LANE LIFT STATION SINGLE LINE DIAGRAM
NO SCALE

NOTES:
1. PROVIDE STAINLESS STEEL CABLE GRIPS FOR CABLES IN WET WELL.

2. BOND NEUTRAL TO GROUND BUS AT 2. METER/DISCONNECT AND AT TRANSFORMER SECONDARY. DO NOT BOND NEUTRAL TO GROUND AT ANY OTHER POINT. THIS INCLUDES THE GENSET.

3. THE TRANSFORMER SECONDARY FEEDER THAT FEEDS PANEL G SHALL BE NO MORE THAN 10' LONG.

4. MOUNT THE PRESSURE TRANSDUCER IN A 6" PVC SCHEDULE 80 CONDUIT IN THE WET WELL. SECURE THE CONDUIT TO THE SIDE OF THE WET WELL WITH STAINLESS STEEL CABLE STRAPS. EXTEND THE CONDUIT THE FULL HEIGHT OF THE WET WELL.

5. THE BOTTOM OF THE CONDUIT SHALL BE 12" OFF THE BOTTOM OF THE WET WELL. INSTALL TWO 1/4" STAINLESS STEEL ALL THREAD RODS 2" UP FROM THE BOTTOM OF THE CONDUIT AND SET THE TRANSDUCER ON THE RODS. PROVIDE A BUSHING AT THE TOP OF THE CONDUIT.

6. PROVIDE EQUIPMENT NAME AND OPERATING VOLTAGE ENGRAVED ON PHENOLIC PLATES WITH 1" HIGH LETTERS ON ALL ELECTRICAL EQUIPMENT.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

BLUEBERRY LANE
PUMP STATION SINGLE LINE

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

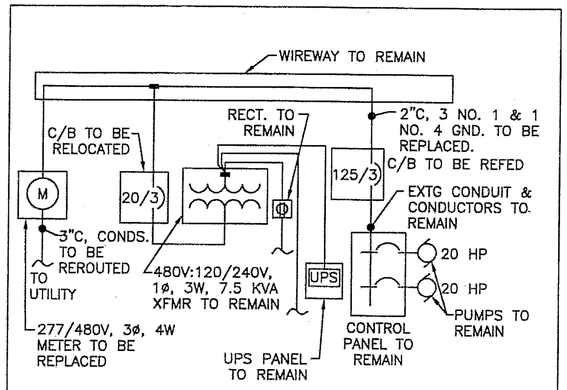
DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

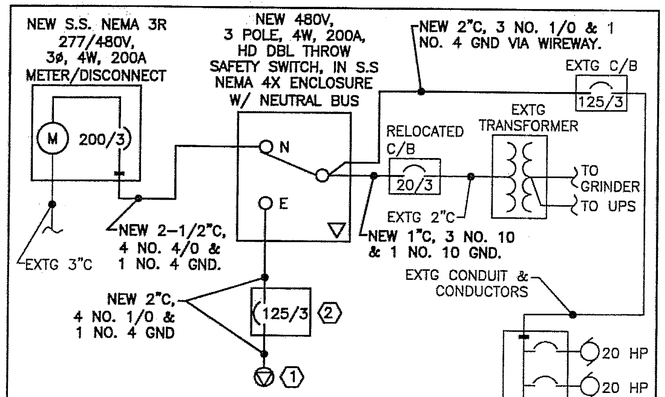
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-4	120

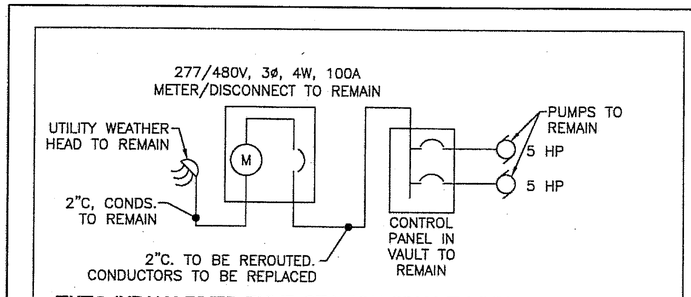
\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:07 PM, \\server\HP LaserJet 5000 Series PS



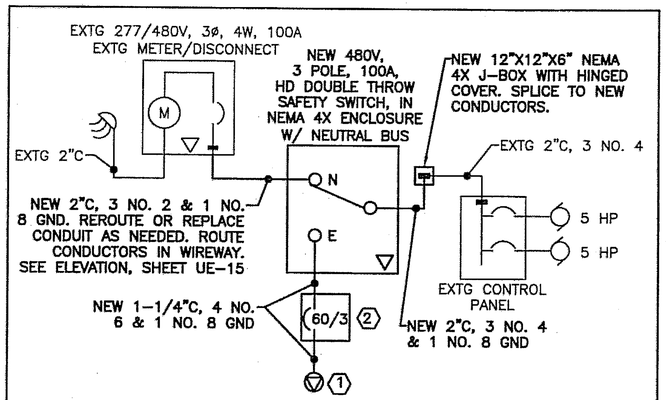
EXTG RANDS ST. PUMP STATION SINGLE LINE DIAGRAM
NO SCALE



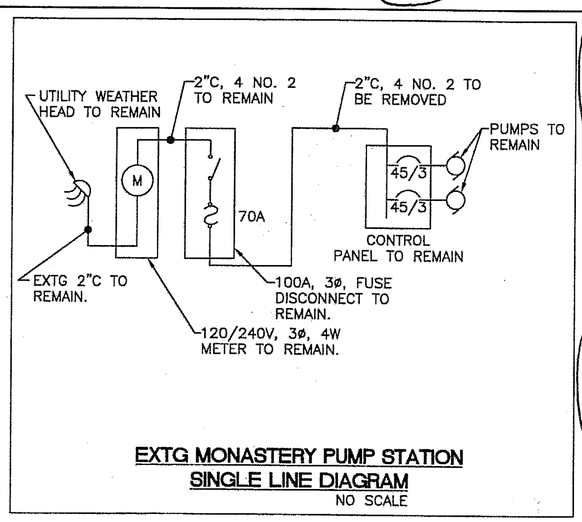
NEW RANDS ST. PUMP STATION SINGLE LINE DIAGRAM
NO SCALE



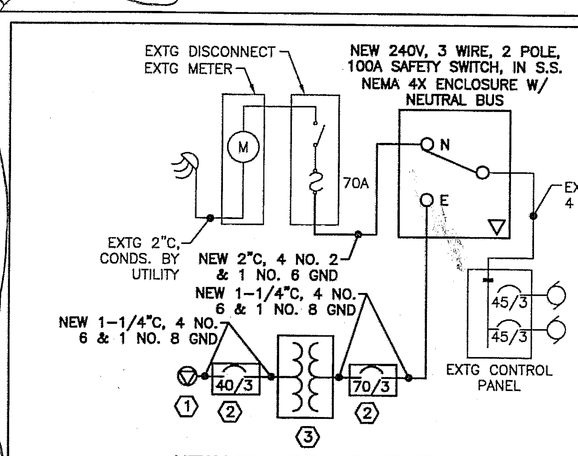
EXTG INDIAN RIVER PUMP STATION SINGLE LINE DIAGRAM
NO SCALE



NEW INDIAN RIVER PUMP STATION SINGLE LINE DIAGRAM
NO SCALE



EXTG MONASTERY PUMP STATION SINGLE LINE DIAGRAM
NO SCALE



NEW MONASTERY PUMP STATION SINGLE LINE DIAGRAM
NO SCALE

EQUIPMENT SCHEDULE

(1) NEW PORTABLE GENERATOR RECEPTACLE. CROUSE HINDS AREA204126S22 WITH BACK BOX, ANGLE ADAPTER, AND REVERSE SERVICE INSULATORS.

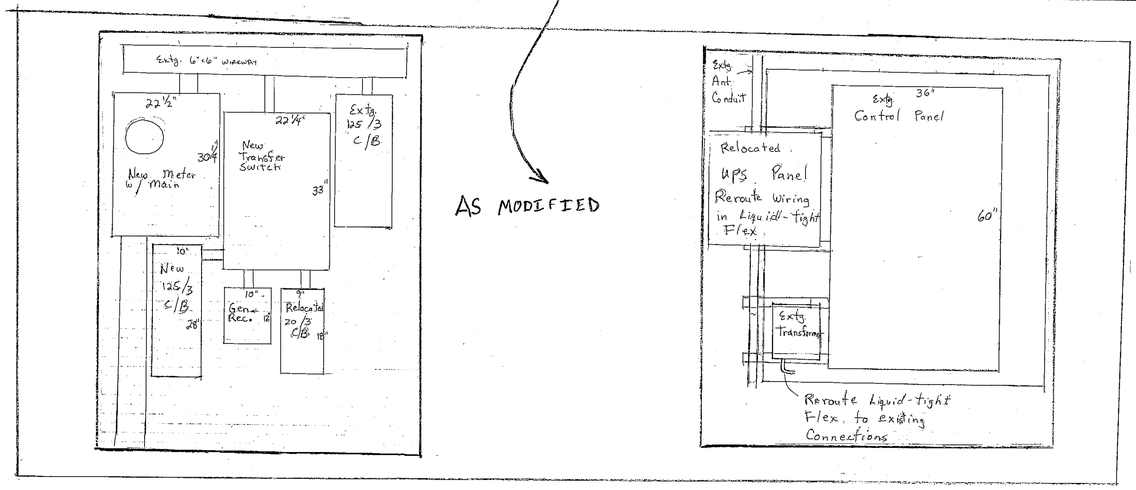
(2) NEW PORTABLE GENSET CIRCUIT BREAKER: MOLDED CASE CIRCUIT BREAKER IN NEMA 4X STAINLESS ENCLOSURE, SIZE AS SHOWN.

(3) NEW 30 KVA TRANSFORMER, 480V, 3PH DELTA:240V, 3 PH DELTA. PROVIDE WITH 120V CENTER TAP SQUARE D 30T6HCT-SS. CONNECT B PHASE TO X3 TO MEET NEC 408.3. PROVIDE WITH S.S. NEMA 3R ENCLOSURE. CONTACT SQUARE D FOR TRANSFORMER PART NUMBER MODIFICATION FOR STAINLESS STEEL ENCLOSURE.

SHEET NOTES:

1. ALL NEMA 3R & 4X ENCLOSURES SHALL BE STAINLESS STEEL.

2. LABEL EVERY ENCLOSURE WITH VOLTAGE AND PHASE ON AN ENGRAVED PHENOLIC LABEL. LETTERS SHALL BE 1" HIGH MINIMUM. FOR EXAMPLE: "277/480V, 3ø".



PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

RANDS DR., INDIAN RIVER, AND MONASTERY ST. EXISTING & NEW PUMP STATION SINGLE LINES

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49 TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

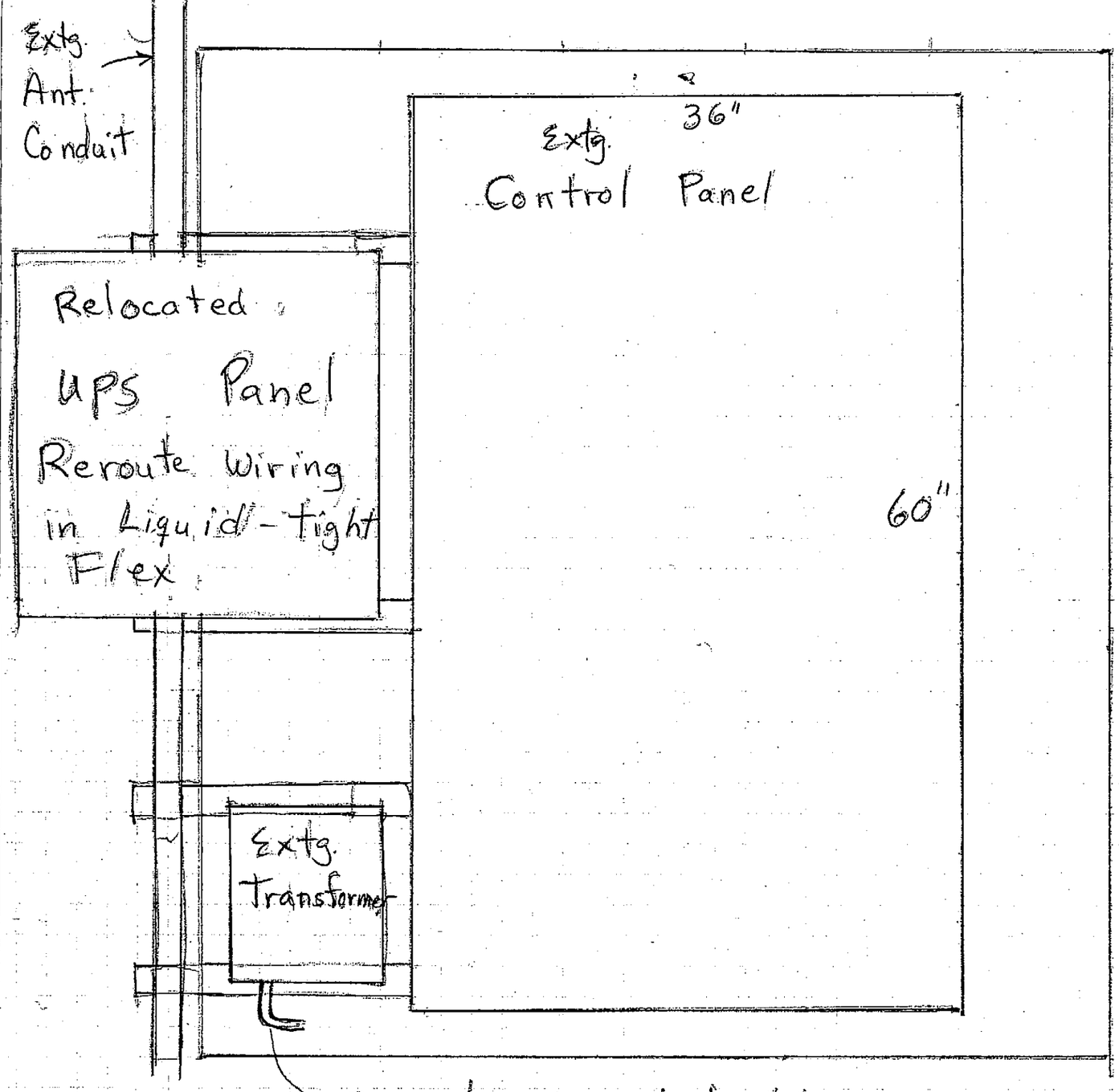
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-5	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:08 PM,
\\server\HP LaserJet 5000 Series PS

RANDS DR. PUMP STATION

MODIFIED PANEL LAYOUT



Extg. 6"x6" WIREWAY

22 1/2"

30 1/4"

New Meter w/ Main

22 1/4"

New Transfer Switch

33"

Extg. 125/3 C/B

10"

New 125/3 C/B

28"

10"

Gen. Rec. 12"

9"

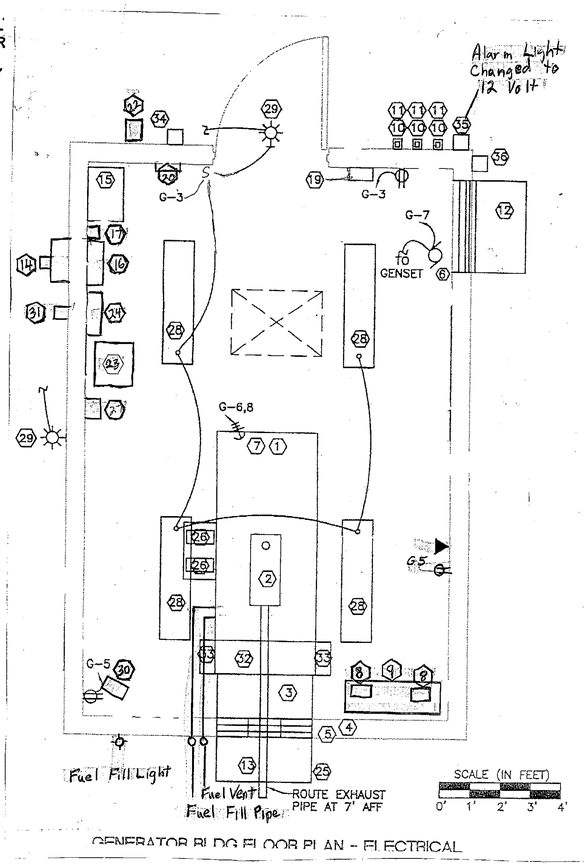
Relocated 20/3 C/B 18"

RANDS DR. PUMP STATION

MODIFIED PANEL LAYOUT

EQUIPMENT SCHEDULE

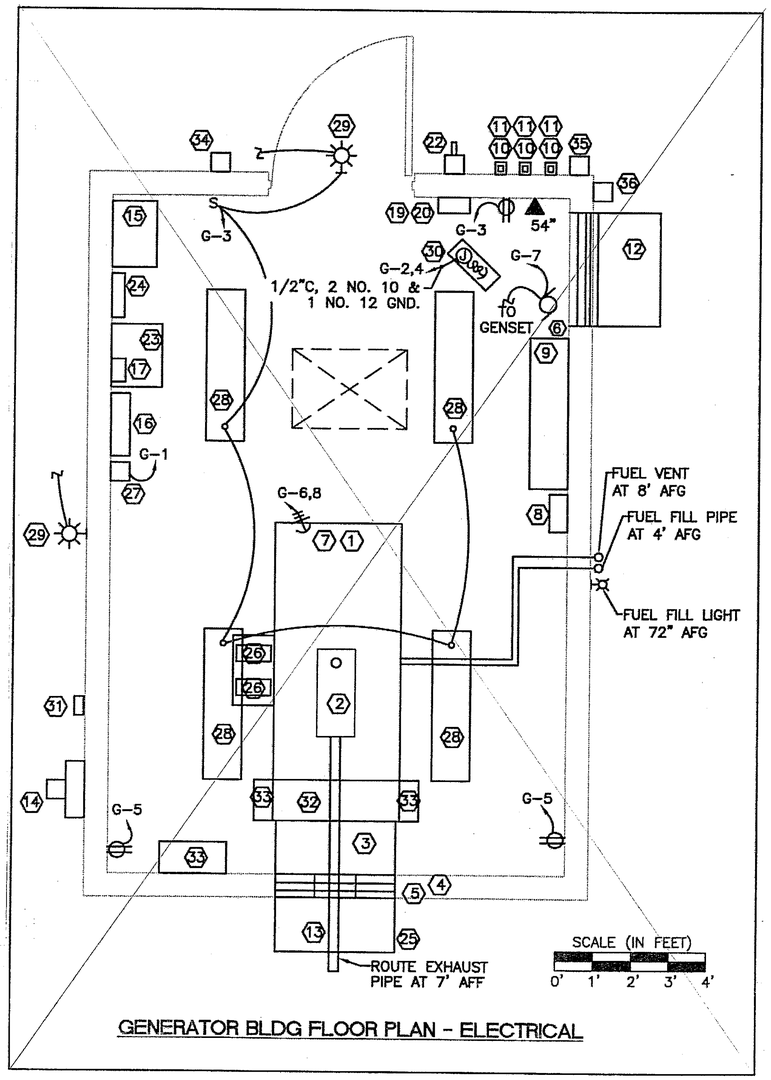
1. GENSET: 80 KW, 277/480V, 3ø, 4W. MOUNT ON (6 MIN) SPRING ISLOATION PADS. BOLT TO PAD WITH EARTHQUAKE ANGLE STOPS. CUMMINS GENSET (FOOTPRINT IS 40"W X 83"L. CUMMINS DGCA 80 SERIES. PROVIDE WITH 80°C ALTERNATOR. SIZE TO START (1) 18 HP PUMP WITH SECOND 18 HP PUMP RUNNING WITH NO MORE THAN 10% VOLTAGE DROP. ASSUME SOLID STATE STARTER LIMITS IN-RUSH MOTOR CURRENT TO 5 TIMES FULL LOAD CURRENT.
2. GENSET SILENCER AND EXHAUST PIPE. SIZE PIPE AND SILENCER PER GENSET MANUFACTURER'S REQUIREMENTS. PROVIDE RESIDENTIAL GRADE SILENCER. SEE DETAIL SHEET UE-11.
3. EXHAUST COOLING AIR DUCT. MOUNT ONE END TO ENGINE RADIATOR. MOUNT THE OTHER END TO THE BACKDRAFT DAMPER AND FIXED LOUVER.
4. BACKDRAFT EXHAUST DAMPER. 36"Hx36"W. MOUNT BASE AT 30". SEE DETAIL SHEET UE-11. PROVIDE EXTRUDED ALUMINUM INSULATED BLADES IN AN ALUMINUM FRAME. THE LOUVER SHALL HAVE A MIN. R VALUE OF 2.25. TAMCO SERIES 8000. BLADE TYPE PB.
5. FIXED BLADE EXHAUST LOUVER. 36"Hx36"W. TAMCO SERIES 3000.
6. MOTORIZED INTAKE LOUVER 36"Hx36"W. PROVIDE WITH EXTRUDED ALUMINUM INSULATED BLADES IN AN ALUMINUM FRAME. THE LOUVER SHALL HAVE A MIN. R VALUE OF 2.25. TAMCO SERIES 9000 WITH SEVERE COLD OPTION. THE LOUVER SEALS SHALL NOT STICK DURING FREEZING CONDITIONS. PROVIDE WITH MOTORIZED ACTUATOR. PROVIDE A 120V MOTOR TO OPERATE THE LOUVER. THE LOUVER SHALL BE SPRING LOADED TO BE OPENED WITH LOSS OF POWER. PROVIDE A NORMALLY CLOSED CONTACT AND INTERPOSING RELAY IF NECESSARY TO POWER THE LOUVER CLOSED WHEN THE GENERATOR IS NOT RUNNING. PROVIDE A NORMALLY CLOSED CONTACT IN THE GENERATOR CONTROL PANEL TO OPEN LOUVER WHEN GENSET STARTS.
7. DUAL WALL SUBBASE FUEL TANK WITH SPILL CONTAINMENT AND DRAIN VALVE. 75 GAL. PROVIDE WITH TANK QUANTITY INDICATOR, LOW FUEL ALARM CONTACTS, REMOTE OVERFILL LIGHT, AND VENT PIPING. VENT TANK TO OUTSIDE AT 8' AFG. USE BLACK IRON PIPE FOR VENT PIPING. SIZE PER MANUFACTURER RECOMMENDATIONS. PAINT WITH RUST- PROOF PAINT. ROUTE ACROSS FLOOR ON UNISTRUT. FUEL TANK SHALL BE MANUFACTURED BY GENSET MANUFACTURER FOR THE MODEL OF GENSET PROVIDED.
8. POWER FACTOR CORRECTION CAPACITORS. MOUNT ON WALL NEXT TO PANEL. FEED FROM PANEL WITH 1/2"C, 3 NO. 12 & 1 NO. 12 GND. MOUNT ON WALL AT 24" AND 48" AFF.
9. PUMP CONTROL PANEL. MOUNT TOP AT 72" AFF.
10. EXPLOSION PROOF JUNCTION BOX (ITEM NO. 19, SHEET UE-4). MOUNT AT 36"AFG.
11. CONDUIT SEALS (ITEM NUMBERS. 13 & 15, SHEET NO. UE-4). MOUNT AT 24" AFG.
12. INTAKE AIR SHROUD WITH BIRD SCREEN. SEE DETAIL SHEET UE-11.
13. EXHAUST THIMBLE. SEE DETAIL SHEET UE-11.
14. COMBINATION METER DISCONNECT. MOUNT TOP AT 72" AFG.
15. AUTOMATIC TRANSFER SWITCH. MOUNT TOP AT 72" AFF. ONAN OTTCA 200A
16. PANEL MDP. MOUNT TOP AT 72" AFF. SQUARE D NF SERIES.
17. TVSS DEVICE. MOUNT TOP AT 60" AFF.
18. NOT USED
19. GENERATOR SELECTOR SWITCH. MOUNT TOP AT 72" AFF.
20. PORTABLE GENERATOR CIRCUIT BREAKER. MOUNT AT 48" AFF.
21. NOT USED
22. PORTABLE GENERATOR RECEPTACLE. MOUNT AT 48" AFG.
23. STEP DOWN TRANSFORMER. 480V:120/208V, 15 KVA. FLOOR MOUNT. SQUARE D 15T3H.
24. PANEL G. MOUNT TOP AT 72" AFF. SQUARE D NQOD SERIES.
25. EXHAUST AIR SHROUD, SEE SHEET UE-11.
26. GENSET BATTERY. 12V. PROVIDE SIZE TO CRANK ENGINE FOR 30 MINUTES CONTINUOUSLY.
27. 12V, 10A, AUTOMATIC BATTERY CHARGER.
28. FLUORESENT WRAPAROUND LUMINAIRE. LITHONIA LB 232120GEB. PROVIDE WITH ELECTRONIC BALLAST, (2) 32W T8 LAMPS, CRI 80 MIN., 3500K. PROVIDE ONE LUMINAIRE WITH EMERGENCY BALLAST.
29. WALLMOUNT EXTERIOR LUMINAIRE, 35W HIGH PRESSURE SODIUM WITH DEEP SHEILD REFLETOR. RUUD E8503-1HP. PROVIDE WITH PHOTOCELL AND HIGH POWER FACTOR BALLAST. MOUNT AT 8' AFG. POLYCARBONATE LENS.
30. CEILING MOUNT UNIT HEATER, 480V, 1ø, 3.7 KW, BUILT IN TWO POLE THERMOSTAT WITH THERMAL CUTOUT. AIR FLOW CAN BE ADJUSTED DOWNWARD. QMARK MUH SERIES WITH OPTIONS MT-2 AND MMB-5.
31. 2 LINE TELEPHONE N.I.D. BY UTILITY. ROUTE ONE LINE TO A TELEPHONE JACK THEN TO MODEM IN THE PUMP CONTROL PANEL. ROUTE ONE LINE TO THE TELEPHONE JACK ON THE WALL. PROVIDE 2 PAIR CABLE IN 1/2" CONDUIT FOR TELEPHONE WIRING. PROVIDE RJ11 TELEPHONE JACK ON WALL WHERE SHOWN. COORDINATE WITH UTILITY TO PROVIDE TELEPHONE SERVICE AND HIGH SPEED INTERNET SERVICE (128 KBS DOWNLOAD/128 KBS UPLOAD) TO THE BUILDING. MOUNT THE MODEM, ROUTER, AND OTHER EQUIPMNET FOR THE INTERNET SERVICE IN THE PUMP CONTROL PANEL. PAY UTILITY FOR THEIR MONTHLY SERVICE CHARGES UNTIL PROJECT COMPLETION.
32. RADIATOR MOUNTED 60 KW AUTOMATIC LOAD BANK. PROVIDE WITH AUTOMATIC LOAD LEVELING. PROVIDE WITH 5 KW STEPS. SIMPLEX LBD-60A OR EQUAL. MOUNT IN EXHAUST DUCT. PROGRAM TO MAINTAIN 50KW ON GENERATOR. DISCONNECT LOAD DURING GENERATOR COOL-DOWN CYCLE.
33. AUTOMATIC LOAD BANK CONTROL PANEL. SIMPLEX LBD SERIES.
34. GENERATOR EMERGENCY STOP.
35. REMOTE GENERATOR ALARM STROBE LIGHT AT 7' AFG. PROVIDE POWER TO STROBE LIGHT FROM PANEL G WITH AN INTERPOSING RELAY IN A NEMA 1 ENCLOSURE ON WALL. CONNECT TO GENERATOR CONTROL PANEL TO ENERGIZE LIGHT WITH GENERATOR ALARM.
36. PUMP ALARM PANEL STROBE LIGHT. MOUNT AT 7' AFG.



GENERATOR BLDG FLOOR PLAN - ELECTRICAL

NOTES:

1. FOR EQUIPMENT NUMBERS 14-24, SEE SINGLE LINE DIAGRAM, SHEET UE-4, FOR MORE DETAIL.
2. ALL EQUIPMENT SHALL BE SURFACE MOUNTED. ALL CONDUIT SHALL BE SURFACE MOUNTED. ALL CONDUIT TRANSITIONING FROM ONE SIDE OF ROOM TO OTHER SHALL BE RUN IN CONCRETE SLAB WHERE POSIBLE. WHEN IT IS NOT POSSIBLE TO RUN CONDUIT IN SLAB, ROUTE CONDUIT OVERHEAD.
3. THE GENERATOR BUILDING LAYOUT IS VERY TIGHT. ALL NEC CLEARANCE REQUIREMENTS ARE MET WITH THE EQUIPMENT SHOWN. IF SUBSTITUTIONS ARE MADE FOR THE EQUIPMENT SHOWN, VERIFY THAT THE NEW EQUIPMENT SIZE WILL ALLOW COMPLIANCE WITH NEC CLEARANCE REQUIREMENTS. IF NEC CLEARANCE REQUIREMENTS CAN NOT BE MET WITH SUBSTITUTED EQUIPMENT, THE GENERATOR BLDG'S LENGTH AND WIDTH SHALL BE INCREASED AS NECESSARY AT THE CONTRACTOR'S EXPENSE.



GENERATOR BLDG FLOOR PLAN - ELECTRICAL

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

BLUEBERRY LANE
GENERATOR BUILDING FLOOR PLAN

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

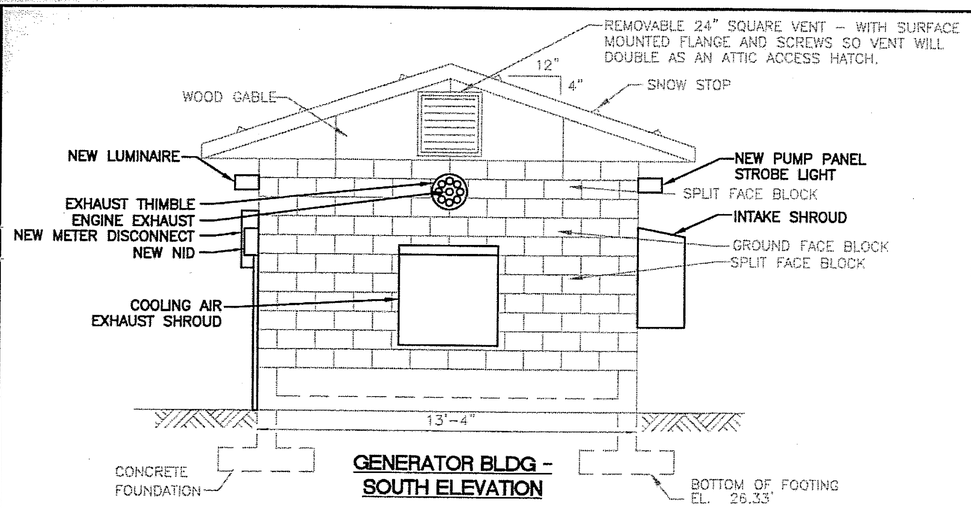
DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

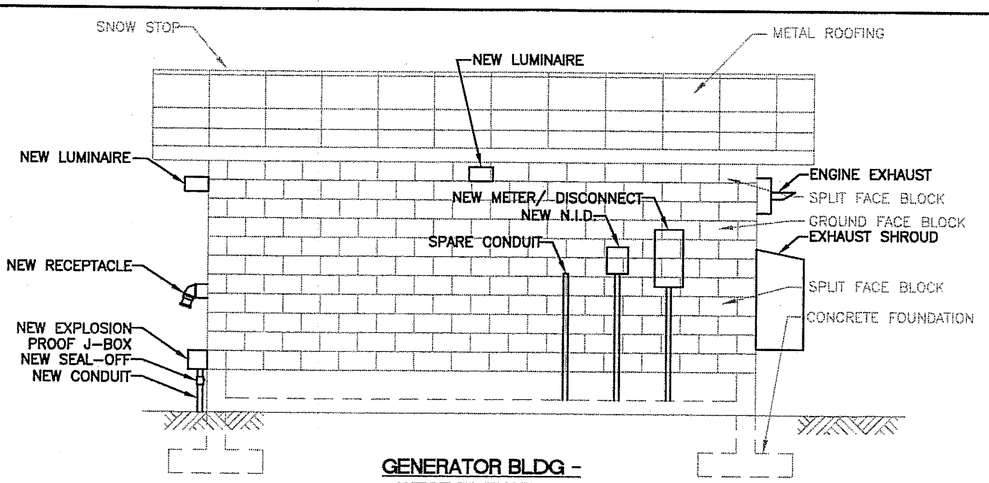
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-6	120

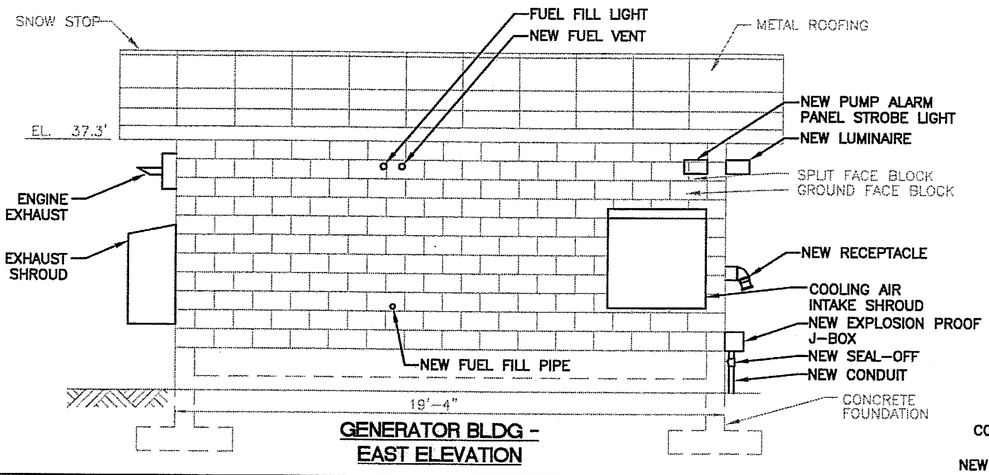
\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:15 PM, \\server\HP LaserJet 5000 Series PS



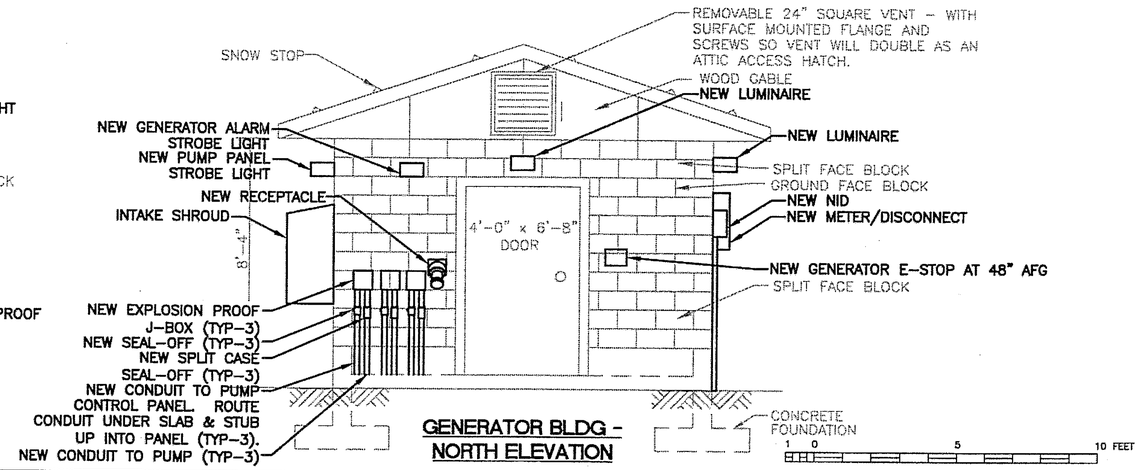
GENERATOR BLDG - SOUTH ELEVATION



GENERATOR BLDG - WEST ELEVATION



GENERATOR BLDG - EAST ELEVATION



GENERATOR BLDG - NORTH ELEVATION

PANEL MDP

SIZE	VOLTS, PHASE	MOUNTING	MAIN	LOCATION
225A	277/480V, 3ø, 4W	SURFACE	150A MAIN	LIFT STATION

CKT NO.	DESCRIPTION	C/B SIZE	KVA CKT	Aø	Bø	Cø	CKT	C/B SIZE	DESCRIPTION	CKT NO.
1	PANEL G	20/3	2.1	12.1			10	100/3	PUMP CONTROL PANEL	2
3	——	——	2.3		12.3		10	——	——	4
5	——	——	0.7			10.7	10	——	——	6
7	SPACE							30/3	TVSS	8
9								——	——	10
11								——	——	12
13									SPACE	14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
TOTAL CONNECTED LOAD = 35.1 KVA/42 AMPS				12.1	12.3	10.7				

PANEL G

SIZE	VOLTS, PHASE	MOUNTING	MAIN	LOCATION
100A	120/208V, 3ø, 4W	SURFACE	50A MAIN	LIFT STATION

CKT NO.	DESCRIPTION	C/B SIZE	KVA CKT	Aø	Bø	Cø	CKT	C/B SIZE	DESCRIPTION	CKT NO.
1	BATTERY CHARGER	20/1	0.2	2.1			1.9	30/2	UNIT HEATER	2
3	LIGHTING		0.4		2.3		1.9	——	——	4
5	RECEPTACLES		0.6			0.7	0.1	20/1	FUEL TANK CONTROL PANEL	6
7	INTAKE LOUVER		0.1				0.1	20/1	WATER JACKET HEATER	8
9	SPARE								SPACE	10
11										12
13	SPACE									14
15										16
17										18
19										20
21										22
23										24
TOTAL CONNECTED LOAD = 5.1 KVA/14 AMPS				2.2	2.3	0.7				

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PANEL SCHEDULES & GENERATOR BUILDING EQUIPMENT ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

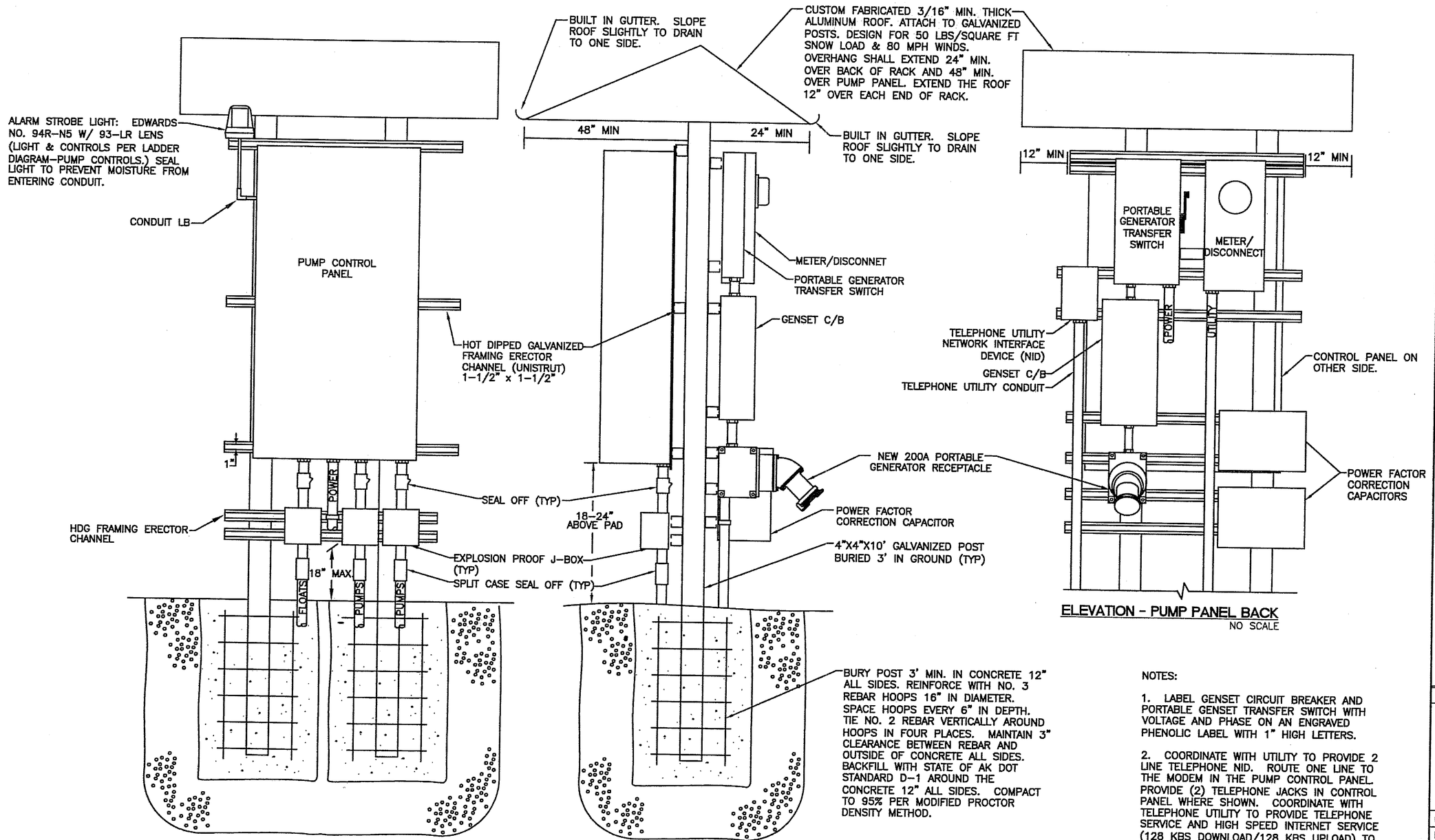
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
UE-7	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase III\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:21 PM, \\server\HP LaserJet 5000 Series PS



ELEVATION - PUMP PANEL FRONT
NO SCALE

ELEVATION - PUMP PANEL + SERVICE EQUIP. SIDE
NO SCALE

ELEVATION - PUMP PANEL BACK
NO SCALE

NOTES:

1. LABEL GENSET CIRCUIT BREAKER AND PORTABLE GENSET TRANSFER SWITCH WITH VOLTAGE AND PHASE ON AN ENGRAVED PHENOLIC LABEL WITH 1" HIGH LETTERS.

2. COORDINATE WITH UTILITY TO PROVIDE 2 LINE TELEPHONE NID. ROUTE ONE LINE TO THE MODEM IN THE PUMP CONTROL PANEL. PROVIDE (2) TELEPHONE JACKS IN CONTROL PANEL WHERE SHOWN. COORDINATE WITH TELEPHONE UTILITY TO PROVIDE TELEPHONE SERVICE AND HIGH SPEED INTERNET SERVICE (128 KBS DOWNLOAD/128 KBS UPLOAD) TO THE PUMP CONTROL PANEL. MOUNT THE MODEM, ROUTER, AND OTHER EQUIPMENT FOR THE INTERNET SERVICE IN THE PUMP CONTROL PANEL. PAY UTILITY FOR THEIR MONTHLY SERVICE CHARGES UNTIL PROJECT COMPLETION.

PEACE LANE PUMP PANEL ELEVATIONS
NO SCALE

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PEACE LANE
PUMP PANEL ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

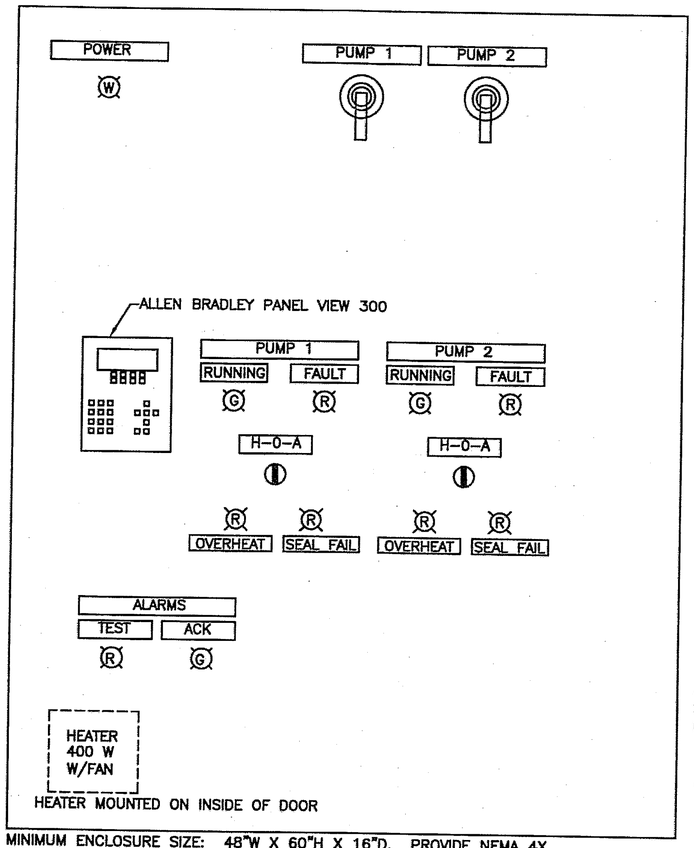
CHECKED BY: MGM

DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-8	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase III\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:34 PM, \\server\HP LaserJet 5000 Series PS



MINIMUM ENCLOSURE SIZE: 48"W X 60"H X 16"D. PROVIDE NEMA 4X TYPE 316 STAINLESS STEEL ENCLOSURE WHEN MOUNTED OUTSIDE.

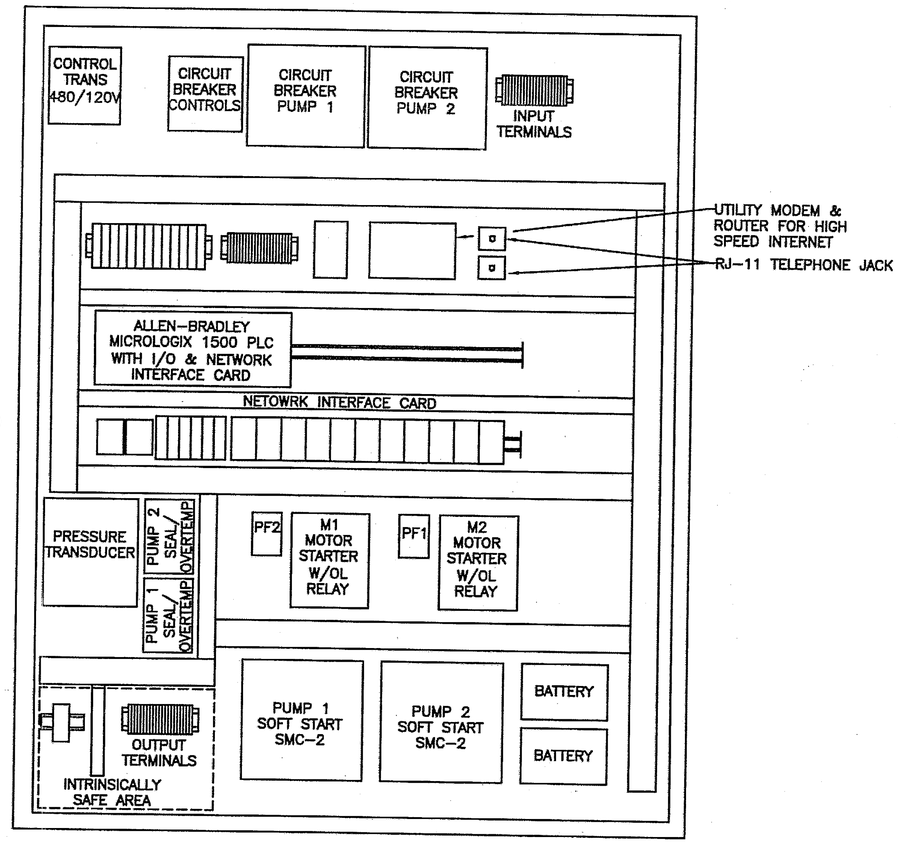
DOOR ELEVATION - CONTROL PANEL

NO SCALE

T-STAT
(ON SIDE)

400W
240V HTR
(ON SIDE)

OPERATE
AT 120V



INTERIOR ELEVATION - CONTROL PANEL

NO SCALE

NOTES:

1. PROVIDE ALLEN BRADLEY MICROLOGIX PLC WITH 1764-28BXB CHASSIS, (1) 1769-IQ16 16 DIGITAL INPUT CARD, (1) 176S-OW8 8 DIGITAL OUTPUT CARD, (1) 1769-IF4 4 ANALOG INPUT CARD, (1) 1761-NET-ENIW WEB ENABLED ETHERNET MODULE, AND ALL OTHER EQUIPMENT REQUIRED TO PERFORM THE FUNCTIONALITY REQUIRED AND SHOWN ON THE DRAWINGS.

2. LOCATE EQUIPMENT IN PANEL AS SHOWN OR AS REQUIRED. COMPLY WITH NEC. PANEL SHALL BE U.L. LISTED AS AN UL508A ASSEMBLY. PANEL SHALL BE PROVIDED BY AN OEM PANEL FABRICATOR. PROVIDE A BOREAL CONTROLS, INC. (907-586-8367) PANEL OR EQUAL.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PEACE & BLUEBERRY LANE
PANEL ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA
40TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

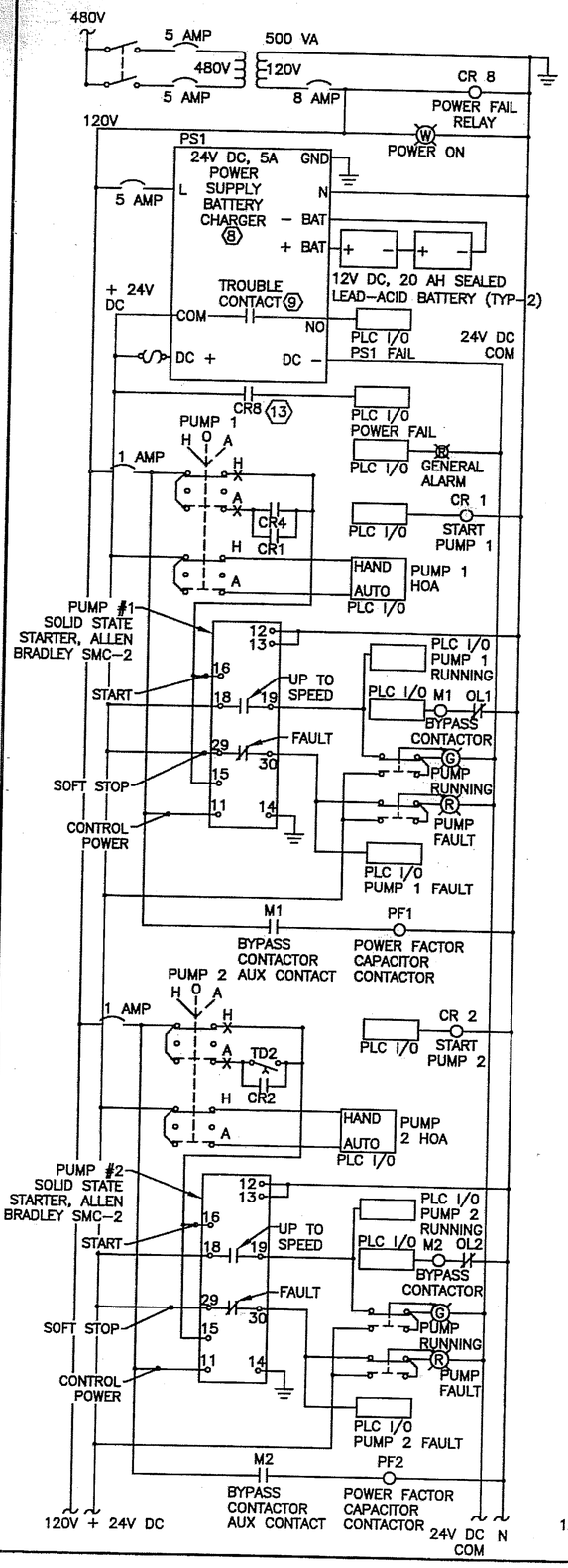
CHECKED BY: MGM

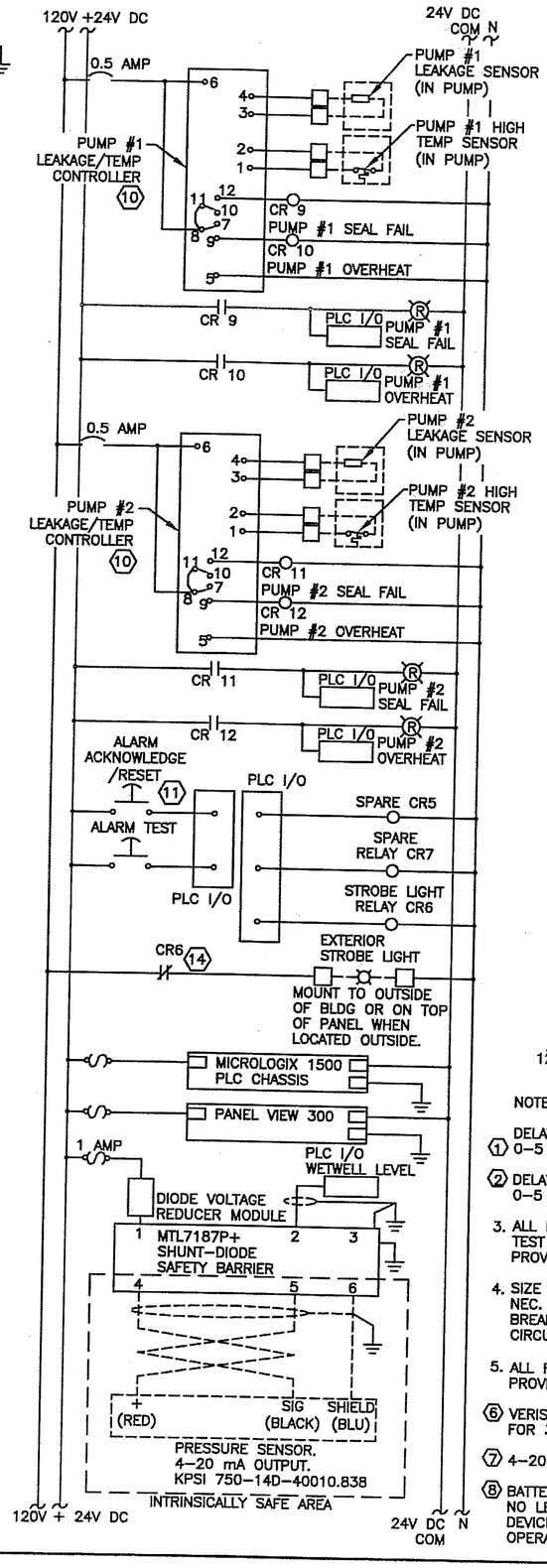
DRAWN BY: NKG

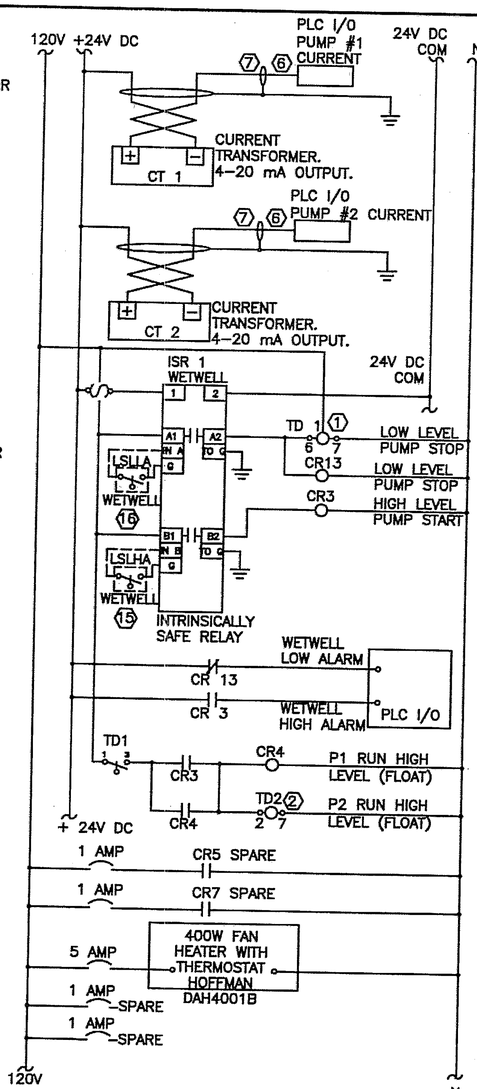
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-9	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:36:35 PM,
\\server\HP LaserJet 5000 Series PS







LADDER DIAGRAM - PUMP CONTROLS

NO SCALE

NOTES:

(1) DELAY ON DEENERGIZE. COORDINATE WITH OWNER. TIME SETTING 0-5 MINUTES.

(2) DELAY ON ENERGIZE. COORDINATE WITH OWNER. TIME SETTING 0-5 MINUTES. INITIALLY SET TO ONE MINUTE.

3. ALL LIGHTS SHALL BE PUSH TO TEST UNLESS OTHERWISE NOTED. TEST CIRCUIT NOT SHOWN ON DIAGRAM IN ALL LOCATIONS. PROVIDE TEST POWER TO EVERY LIGHT.

4. SIZE CIRCUIT BREAKERS AND FUSES AS REQUIRED AND PER THE NEC. COORDINATE FUSE SIZES WITH ENGINEER. USE CIRCUIT BREAKERS ON 120V AC CIRCUITS AND RESETTABLE FUSES ON DC CIRCUITS.

5. ALL RELAYS SHALL HAVE A MINIMUM OF (2) AUXILLARY CONTACTS. PROVIDE ADDITIONAL AUXILLARY CONTACTS OR RELAYS AS REQUIRED.

(6) VERIS HAWKEYE 921 SWITCH SETTINGS ON CURRENT TRANSFORMER FOR 30,60,120 AMP FULL SCALE.

(7) 4-20 mA MOTOR CURRENT SIGNAL

(8) BATTERY CHARGER ALLOWS UP TO ONE AMP TO CHARGE BATTERY. NO LESS THAN 4 AMPS ARE AVAILABLE TO OPERATE LOADS. THE DEVICE INCORPORATES BATTERY OVERLOAD PROTECTION AND OPERATES AS A DC UPS.

PLC INPUTS (24V DIGITAL)

	NOTES
1. POWER FAIL	THIS INPUT NORMALLY ENERGIZED UNLESS IN ALARM
2. PUMP #1 HAND	HOA SWITCH POSITION CONTACTS
3. PUMP #1 AUTO	HOA SWITCH POSITION CONTACTS
4. PUMP #1 RUNNING	SMC "UP TO SPEED" N.O. CONTACTS
5. PUMP #1 FAULT	SMC "FAULT" N.C. CONTACTS
6. PUMP #1 SEAL FAIL	SEAL FAIL RELAY N.O. CONTACTS
7. PUMP #1 OVERHEAT	OVERHEAT RELAY N.O. CONTACTS
8. PUMP #2 HAND	HOA SWITCH POSITION CONTACTS
9. PUMP #2 AUTO	HOA SWITCH POSITION CONTACTS
10. PUMP #2 RUNNING	SMC "UP TO SPEED" N.O. CONTACTS
11. PUMP #2 FAULT	SMC "FAULT" N.C. CONTACTS
12. PUMP #2 SEAL FAIL	SEAL FAIL RELAY N.O. CONTACTS
13. PUMP #2 OVERHEAT	OVERHEAT RELAY N.O. CONTACTS
14. WETWELL LOW ALARM	ISR 1 RELAY N.O. CONTACTS (LOW LEVEL)
15. WETWELL HIGH ALARM	ISR 1 RELAY N.O. CONTACTS (HIGH LEVEL)
16. BATTERY CHARGER FAIL	PSI N.O. TROUBLE CONTACT
17. ALARM ACKNOWLEDGE/RESET	PUSH BUTTON CONTACTS
18. ALARM TEST	PUSH BUTTON CONTACTS

PLC OUTPUTS (DIGITAL)

	NOTES
1. GENERAL ALARM	24V, ENERGIZE ALARM LIGHT
2. EXTERIOR STROBE LIGHT	120V, ENERGIZE ALARM LIGHT
3. PUMP #1 AUTO RUN	120V, ENERGIZE CR1
4. PUMP #2 AUTO RUN	120V, ENERGIZE CR2
5. PUMP #1 BYPASS	120V, ENERGIZE M1
6. PUMP #2 BYPASS	120V, ENERGIZE M2
7. SPARE RELAY	120V, ENERGIZE CR5
8. SPARE RELAY	120V, ENERGIZE CR7

PLC INPUTS (ANALOG)

	NOTES
1. WETWELL LEVEL	SIGNAL FROM PRESSURE TRANSDUCER
2. PUMP #1 MOTOR CURRENT	SIGNAL FROM CURRENT TRANSFORMER
3. PUMP #2 MOTOR CURRENT	SIGNAL FROM CURRENT TRANSFORMER

NOTES (CONTINUED):

(9) TROUBLE CONTACT INDICATES LOW BATTERY OR HIGH CHARGE.

(10) PROVIDE A LEAKAGE/TEMPERATURE CONTROLLER THAT IS COMPATIBLE WITH THE PUMPS BEING PROVIDED. FOR EXAMPLE: MINI CAS FOR FLYGT PUMPS.

(11) THIS BUTTON PERFOMRS BOTH ACKNOWLEDGE AND RESET FUNCTIONS.

12. PROGRAMMING OF PLC TO BE PERFORMED BY OTHERS. COORDINATE WITH PROGRAMMER TO COMPLETELY TEST LIFT STATION.

(13) THIS CONTACT IS CLOSED WHEN POWER IS PRESENT AT THE RELAY COIL (NORMAL OPERATING CONDITION). THE PLC INPUT IS NORMALLY ENERGIZED UNLESS IN ALARM.

(14) THIS CONTACT IS CLOSED WHEN STATION POWER IS ON AND NO ALARMS ARE PRESENT (NORMAL OPERATING CONDITION).

(15) THIS IS A LIQUID LEVEL SWITCH LOCATED IN THE WETWELL. SET AT HIGH LEVEL ALARM HEIGHT (SEE CIVIL DRAWINGS AND SPECIFICATIONS). FLOAT SWITCH IS OPEN WHEN HANGING AND CLOSED WHEN FLOATING.

(16) THIS IS A LIQUID LEVEL SWITCH LOCATED IN THE WETWELL. SET AT LOW LEVEL ALARM HEIGHT (SEE CIVIL DRAWINGS AND SPECIFICATIONS). FLOAT SWITCH IS CLOSED WHEN HANGING AND OPEN WHEN FLOATING.

17. WHEN HIGH FLOAT IS TRIGGERED, PUMP DOWN CYCLE BEGINS WITH PUMP 1. IF THE LOW LEVEL IS NOT HANGING WITHIN 1 MINUTE, PUMP 2 ENERGIZES AS WELL.

PATH:

PLOT: PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

BLUEBERRY & PEACE LANE PUMP STATION LADDER DIAGRAMS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH Mark G. Morris Dec 21, 2005 No. EE 8613 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

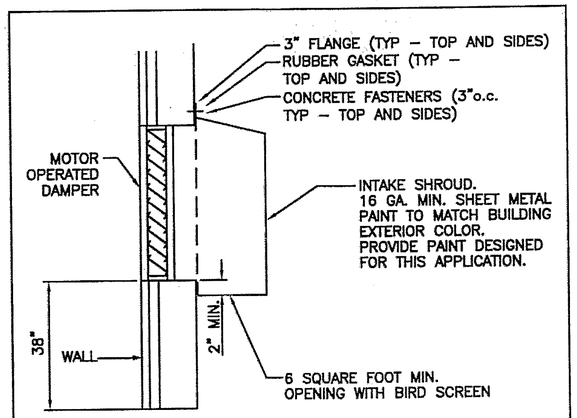
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER
68023/68926

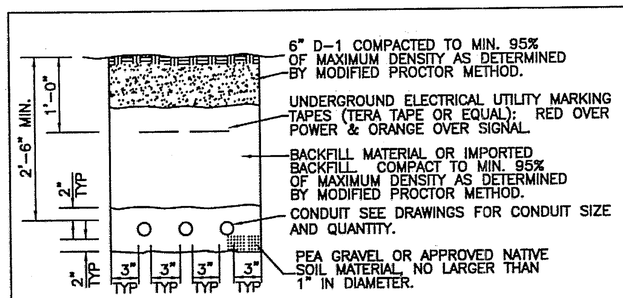
STATE	YEAR
ALASKA	2005

SHEET NUMBER	TOTAL SHEETS
UE-10	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:34:45 PM, \\server\HP LaserJet 5000 Series PS

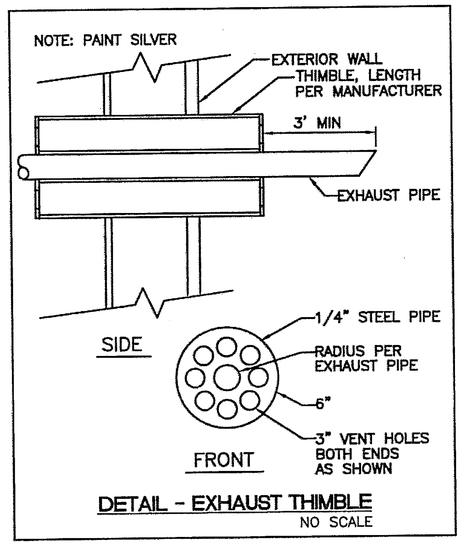


DETAIL - INTAKE DAMPER AND SHROUD
NO SCALE

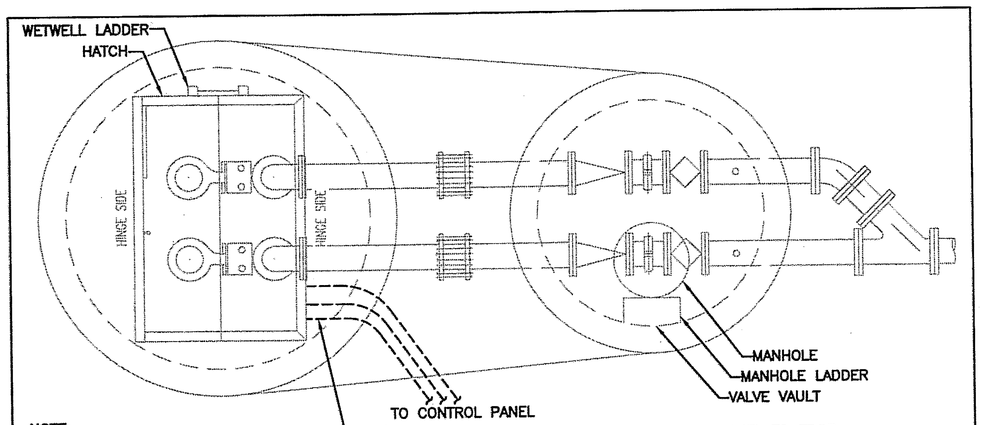


TRENCH DETAIL
NO SCALE

NOTES:
1. ALL DIMENSIONS ARE MINIMUM.
2. SEPARATE POWER AND TELEPHONE UTILITY CONDUITS 12" APART MIN.

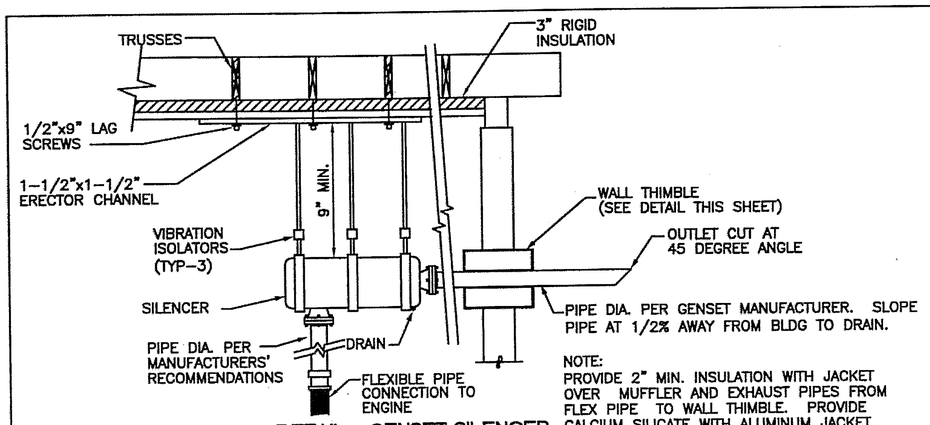


DETAIL - EXHAUST THIMBLE
NO SCALE



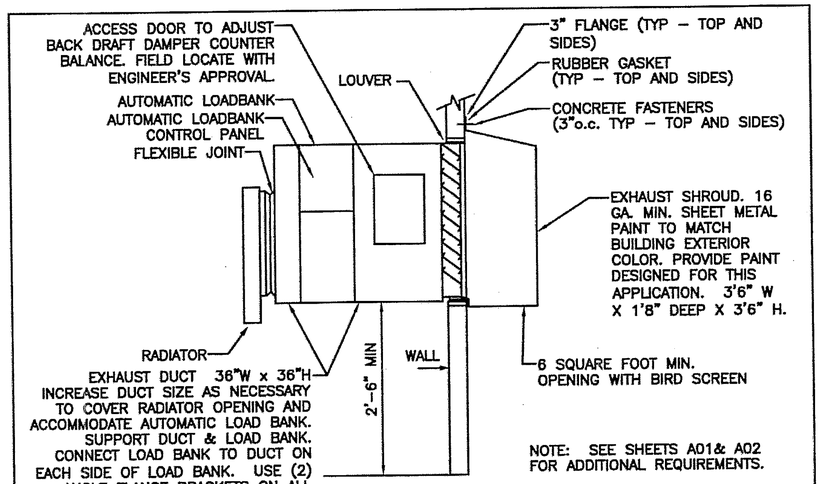
NOTE:
1. MOUNT PRESSURE TRANSDUCER & (2) FLOAT LEVEL SWITCHES PER DRAWINGS & SPECIFICATIONS, PER MANUFACTURERS DIRECTIONS, AND AS REQUIRED.

DETAIL - WET WELL
NO SCALE



NOTE:
PROVIDE 2" MIN. INSULATION WITH JACKET OVER MUFFLER AND EXHAUST PIPES FROM FLEX PIPE TO WALL THIMBLE. PROVIDE CALCIUM SILICATE WITH ALUMINUM JACKET.

DETAIL - GENSET SILENCER
NO SCALE



EXHAUST DUCT 36"W x 36"H INCREASE DUCT SIZE AS NECESSARY TO COVER RADIATOR OPENING AND ACCOMMODATE AUTOMATIC LOAD BANK. SUPPORT DUCT & LOAD BANK. CONNECT LOAD BANK TO DUCT ON EACH SIDE OF LOAD BANK. USE (2) ANGLE FLANGE BRACKETS ON ALL SIDES PER LOAD BANK MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE DUCT IS HIGHER THAN RADIATOR IN ORDER TO PROVIDE HIGHER GROUND CLEARANCE OF LOUVER.

NOTE: SEE SHEETS A01& A02 FOR ADDITIONAL REQUIREMENTS.

DETAIL - EXHAUST LOUVER AND SHROUD
NO SCALE

NOTES:

1. MODIFY WIDTH OF DUCT BETWEEN RADIATOR AND LOADBANK AS REQUIRED TO PROVIDE PROPER TRANSITION AND MOUNTING OF LOADBANK. PROVIDE TRANSITION FROM LOADBANK TO DUCT ON LOUVER SIDE OF LOADBANK AS REQUIRED. DUCT WIDTH AT LOUVER SHALL BE 36" WIDE.

2. PROVIDE STRUCTURE BETWEEN DUCT/LOADBANK AND FLOOR AS REQUIRED TO SUPPORT DUCT AND LOADBANK.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

BLUEBERRY & PEACE LANE
PUMP STATION DETAIL, TRENCH DETAIL & GENERATOR DETAILS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-11	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase 1\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:34:54 PM, \\server\HP LaserJet 5000 Series PS

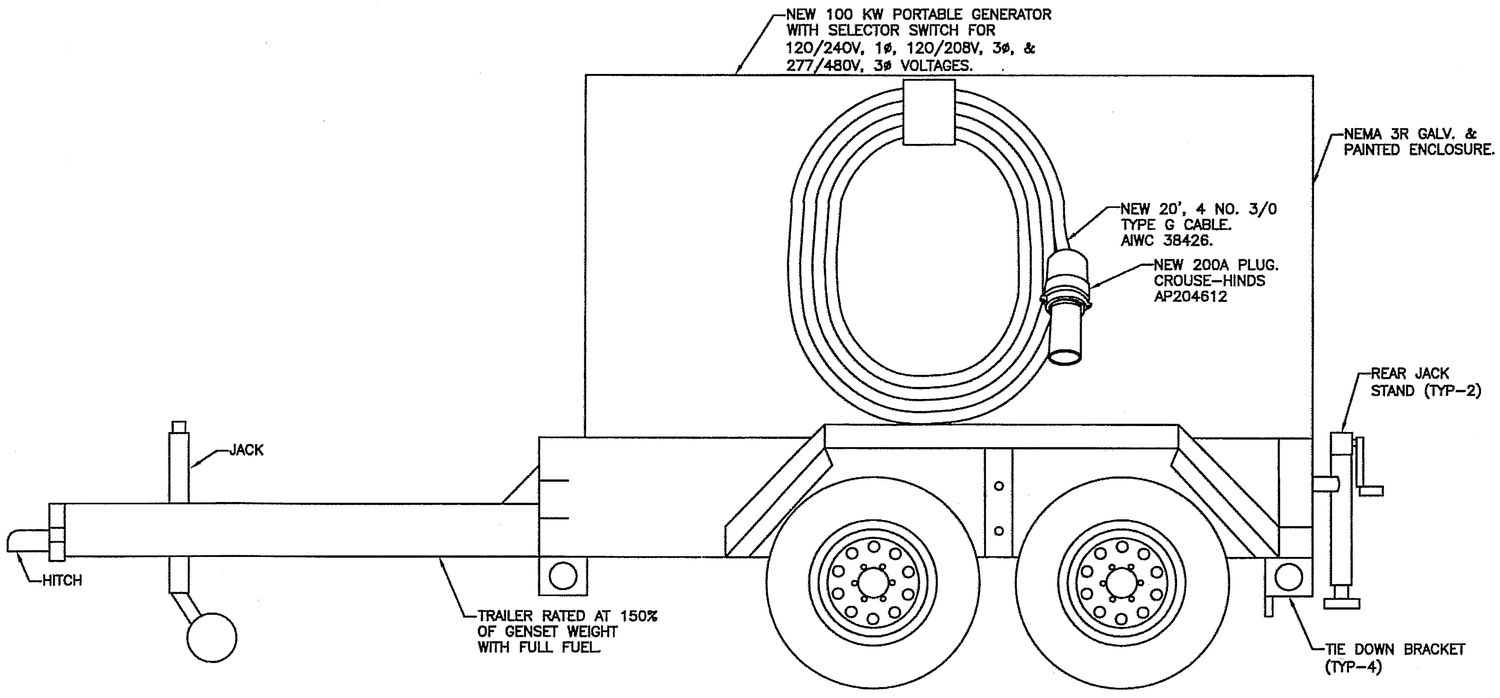
NOTES:

1. PROVIDE A PORTABLE 100 KW MINIMUM STANDBY GENERATOR IN NEMA 3R GALVANIZED PAINTED STEEL ENCLOSURE WITH 12 HOUR SUBBASE TANK, BATTERIES, LOUVERS, EXHAUST PIPING, MUFFLER, BATTERY CHARGER, TRAILER, AND ALL EQUIPMENT & WIRING NECESSARY FOR A FULLY PORTABLE GENSET. THE TRAILER SHALL BE HOT DIPPED GALVANIZED. THE GENERATOR SHALL HAVE A SELECTOR SWITCH TO PROVIDE THE FOLLOWING VOLTAGES: 120/240V, 1ø, 3W; 120/208V, 3ø, 4W; AND 277/480V, 3ø, 4W. PROVIDE A MOLDED CASE, 480V, SOLID STATE CIRCUIT BREAKER WITH ADJUSTABLE LONG TIME SETTING BETWEEN 200A–125A. PROVIDE A SQUARE D LXL36200 RATING PLUG KIT WITH A 0.5 SENSOR MULTIPLIER VALUE. SIZE THE GENERATOR TO POWER THE STARTING OF (1) 20 HP PUMP WITH A SECOND 20 HP PUMP ALREADY RUNNING. THE GENERATOR VOLTAGE SHALL NOT EXCEED A 10% DROP DURING PUMP START. ASSUME A STARTING IN–RUSH CURRENT OF 162 AMPS WITH AN ADDITIONAL STEADY STATE LOAD OF 27 AMPS AT 480V, 3 PHASE. PROVIDE GENERATOR, TRAILER, & SELECTOR SWITCH AS AN INTEGRAL PACKAGE. PROVIDE A CUMMINS NW (1–800–478–3646) PORTABLE GENSET OR EQUAL.

2. PROVIDE A 20', 4 NO. 3/0 TYPE G CABLE TO POWER THE PUMP STATION EMERGENCY RECEPTACLE FROM THE GENERATOR. PROVIDE A 200A PLUG ON THE END OF CABLE, CROUSE–HINDS AP204612.

3. PROVIDE AN AUTOMATIC BATTERY CHARGER, WATER JACKET HEATER, 500W FAN HEATER INSIDE ENCLOSURE, & CORDS TO POWER THESE DEVICES FROM 120V EXTERNAL POWER WHEN GENSET IS NOT IN USE.

4. GENSET & ACCESSORIES SHALL COMPLY WITH SPECIFICATION SECTION 16231 AND OTHER APPLICABLE SECTIONS.



PORTABLE GENERATOR
NO SCALE

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

PORTABLE GENERATOR ON UTILITY TRAILER

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Monts
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

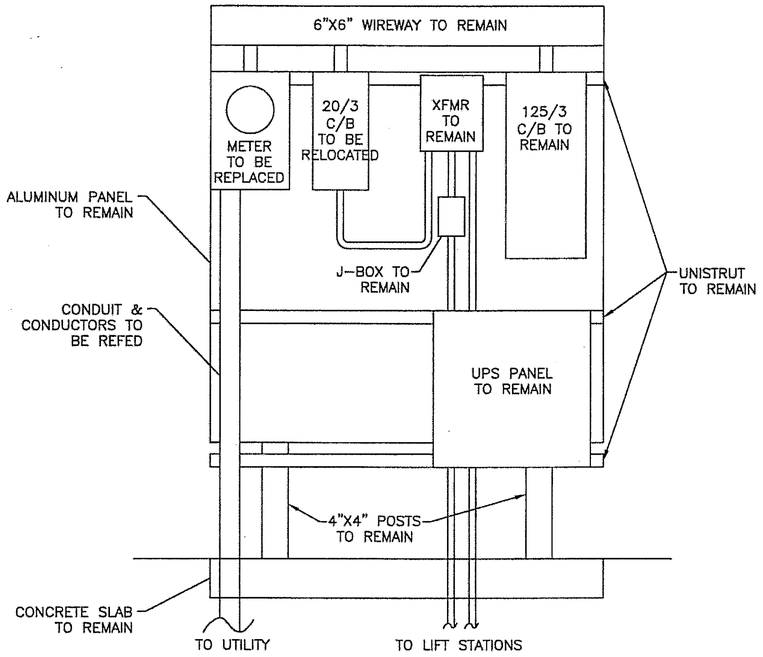
CHECKED BY: MGM

DRAWN BY: NKG

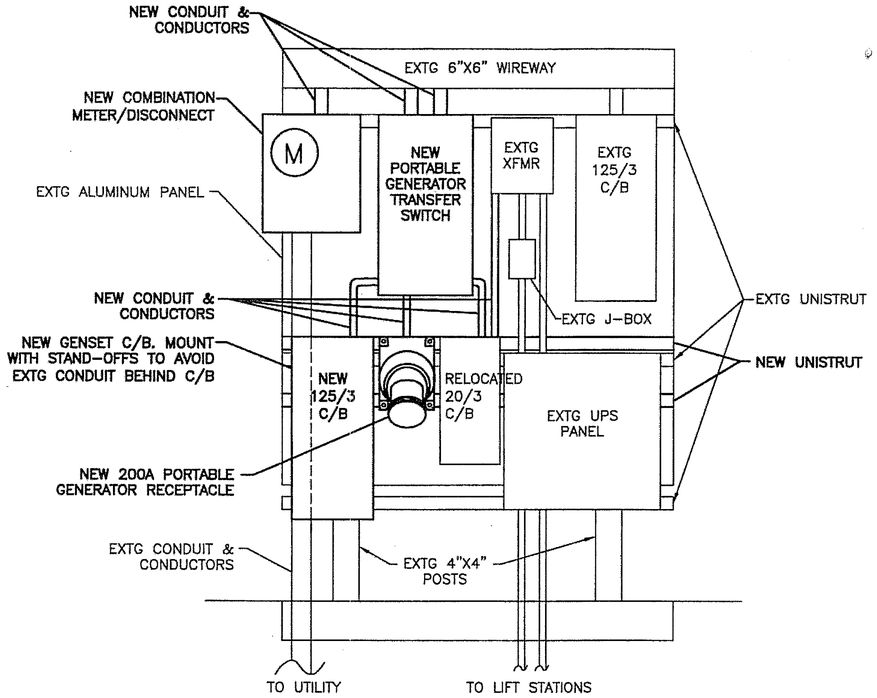
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-12	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:35:09 PM, \\server\HP LaserJet 5000 Series PS



ELEVATION - EXTG PUMP PANEL
NO SCALE



ELEVATION - NEW PUMP PANEL
NO SCALE

RANDS DRIVE PUMP PANEL ELEVATIONS
NO SCALE

NOTES:

1. REPLACE METER AND RELOCATE EXISTING EQUIPMENT AS SHOWN AND AS REQUIRED TO MOUNT NEW EQUIPMENT AS SHOWN. REPLACE CONDUIT AND CONDUCTORS AS REQUIRED. THE NEW 125/3 CIRCUIT BREAKER HAS TO BE MOUNTED OVER THE EXISTING CONDUIT THAT FEEDS THE NEW METER. THIS WILL REQUIRE ADDITIONAL UNISTRUT & STAND OFF HARDWARE. PROVIDE ALL BRACKETS & EQUIPMENT NECESSARY TO RELOCATE EXISTING 20/3 CIRCUIT BREAKER & MOUNT NEW EQUIPMENT. SEE SINGLE LINE SHEET UE-5.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

RANDS DRIVE
PUMP PANEL ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA
49 TH
Mark G. Morris
Dec 21, 2005
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

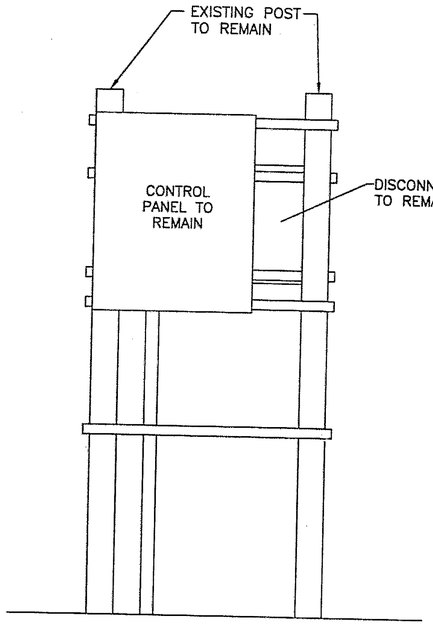
CHECKED BY: MGM

DRAWN BY: NKG

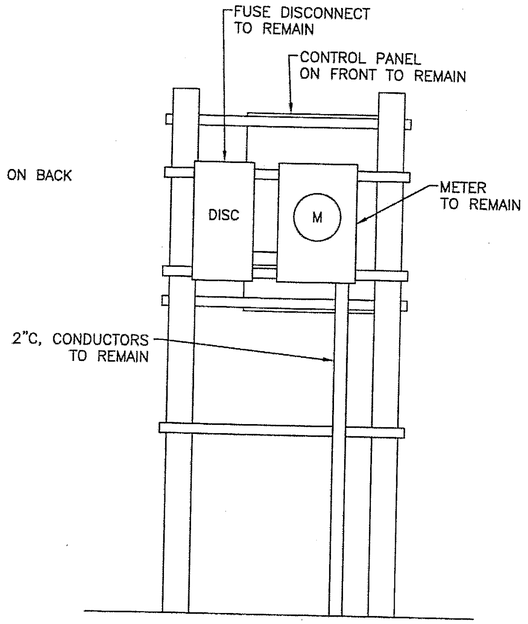
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-13	120

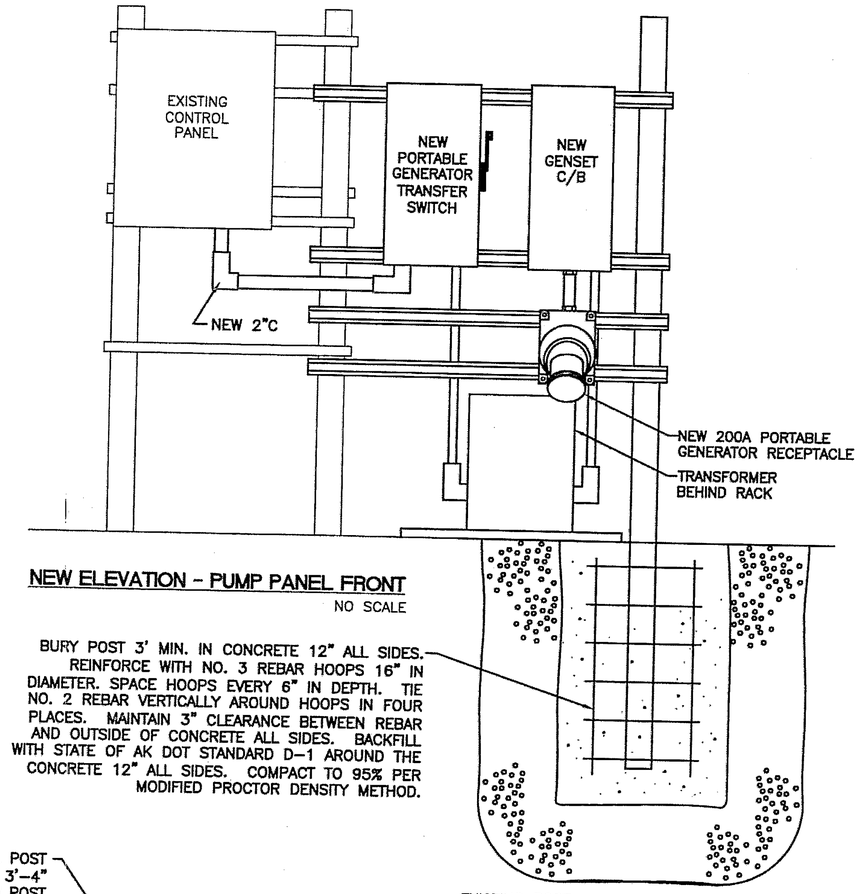
\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:35:22 PM, \\server\HP LaserJet 5000 Series PS



EXISTING ELEVATION - PUMP PANEL FRONT
NO SCALE



EXISTING ELEVATION - PUMP PANEL BACK
NO SCALE

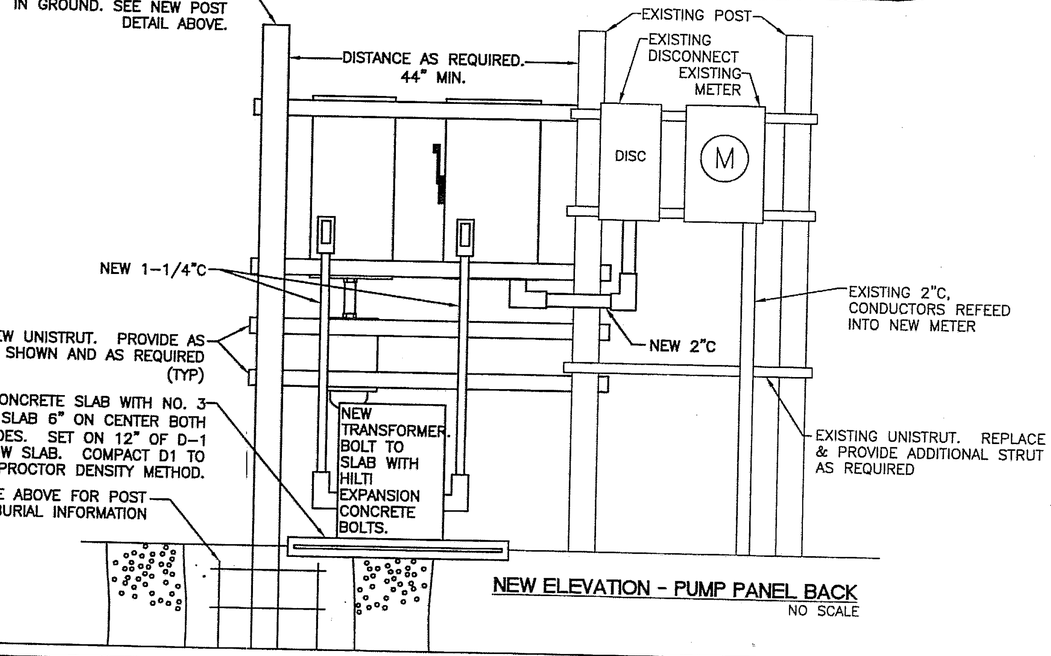


NEW ELEVATION - PUMP PANEL FRONT
NO SCALE

BURY POST 3' MIN. IN CONCRETE 12" ALL SIDES. REINFORCE WITH NO. 3 REBAR HOOPS 16" IN DIAMETER. SPACE HOOPS EVERY 6" IN DEPTH. TIE NO. 2 REBAR VERTICALLY AROUND HOOPS IN FOUR PLACES. MAINTAIN 3" CLEARANCE BETWEEN REBAR AND OUTSIDE OF CONCRETE ALL SIDES. BACKFILL WITH STATE OF AK DOT STANDARD D-1 AROUND THE CONCRETE 12" ALL SIDES. COMPACT TO 95% PER MODIFIED PROCTOR DENSITY METHOD.

MONASTERY ST. PUMP PANEL ELEVATIONS
NO SCALE

NOTE:
ADD A NEW POST AND NEW UNISTRUT TO INCREASE SIZE OF RACK. PROVIDE NEW EQUIPMENT AS SHOWN. REFEED EXISTING CONTROL PANEL AS SHOWN. PROVIDE ALL WORK & EQUIPMENT NECESSARY, INCLUDING CONDUIT & CONDUCTORS, UNISTRUT, ETC., AS REQUIRED TO ADD THE CAPABILITY TO POWER THE LIFT STATION FROM THE NEW PORTABLE GENERATOR. SEE SINGLE LINE SHEET UE-5.



NEW ELEVATION - PUMP PANEL BACK
NO SCALE

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

MONASTERY STREET
PUMP PANEL ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 8813
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

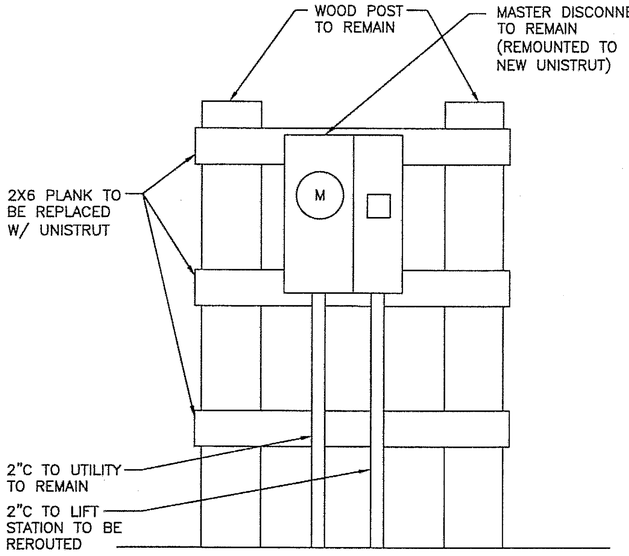
DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING
SERVICES DIVISION

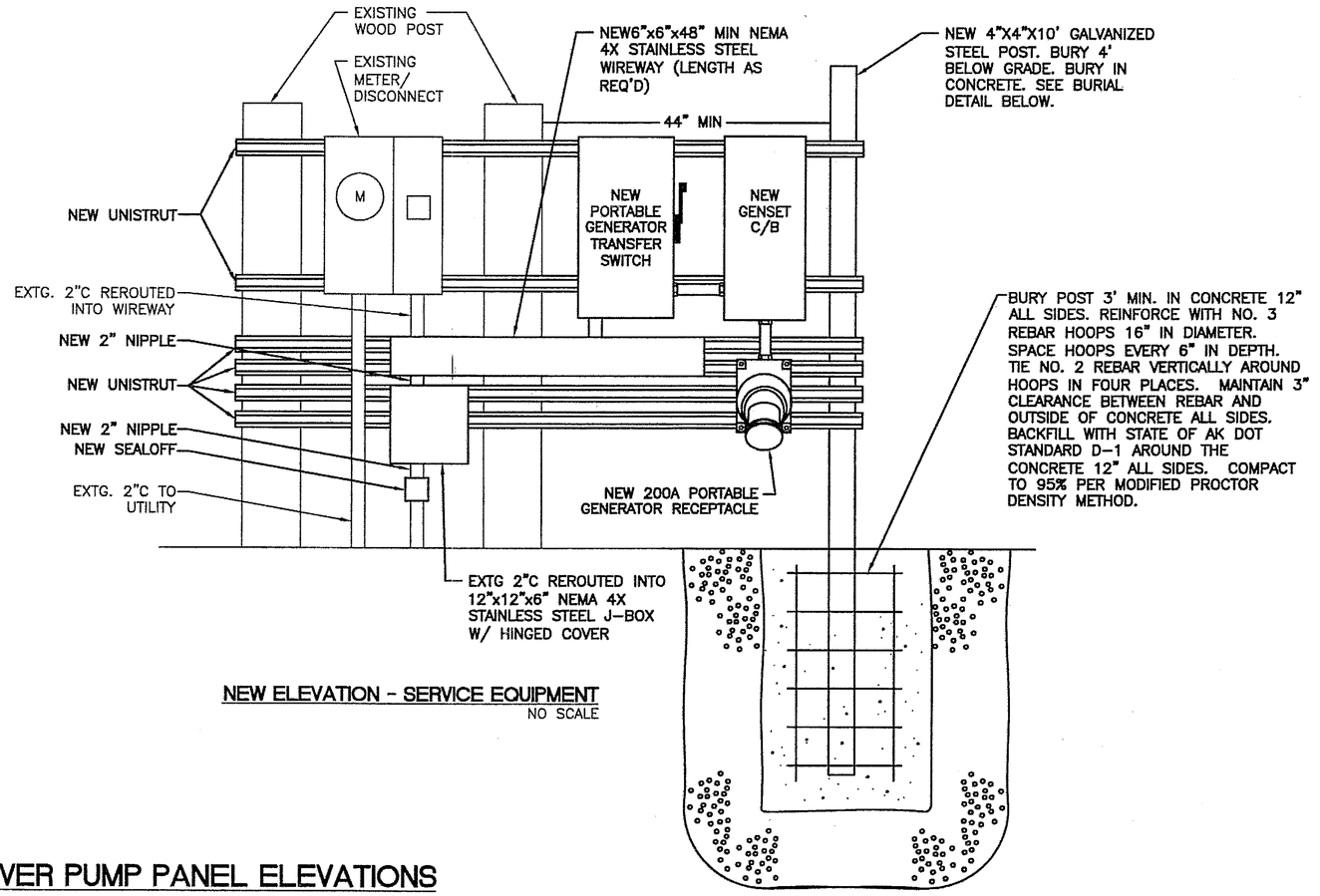
PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-14	120

\\server\Cad Files\CAD\115 Carson Dorn\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:35:35 PM, \\server\HP LaserJet 5000 Series PS



EXISTING ELEVATION - SERVICE EQUIPMENT
NO SCALE



NEW ELEVATION - SERVICE EQUIPMENT
NO SCALE

INDIAN RIVER PUMP PANEL ELEVATIONS
NO SCALE

NOTES:
1. PROVIDE NEW POST AND NEW UNISTRUT TO EXTEND RACK TO PROVIDE NEW EQUIPMENT AS SHOWN. REPLACE WOOD PLANKS WITH NEW UNISTRUT TO ALLOW ALL EQUIPMENT TO BE MOUNTED ON THE SAME VERTICAL PLANE.

2. PROVIDE NEW CONDUIT & CONDUCTORS, AND REROUTE EXISTING CONDUIT AS REQUIRED TO POWER ALL EQUIPMENT AS SHOWN IN THE SINGLE LINE DIAGRAM ON SHEET UE-5.

3. PROVIDE ALL WORK & EQUIPMENT NECESSARY INCLUDING CONDUIT & CONDUCTORS, UNISTRUT, ETC., AS REQUIRED TO ADD THE CAPABILITY TO POWER THE LIFT STATION FROM THE NEW PORTABLE GENERATOR.

PATH:

PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA NO. 68783

INDIAN RIVER PUMP PANEL ELEVATIONS

PREPARED BY:

DESIGNED BY: MGM

STATE OF ALASKA 49TH
Mark G. Morris
Dec 21, 2005
No. EE 9613
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: MGM

DRAWN BY: NKG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UE-15	120

\\server\Cad Files\CAD\115 Carson Dorm\06 Sawmill Creek Road Sewer Extension, Phase II\100% SAWMILL ELEC\SAWMILL ELEC 100%.dwg, 12/21/2005 10:35:48 PM, \\server\HP LaserJet 5000 Series PS

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG1.dwg

Tue, 20/Dec/05 03:07PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SITKA MAP

STARRIGAVAN BAY

1/4 0 1/8 1/4 1/2 MILE

SMC RD.
SEWER PROJECT
AREA

INDIAN RIVER RD.
ELECTRICAL WORK

MONASTERY ST.
ELECTRICAL WORK

RANDS DRIVE
ELECTRICAL WORK

HERRING COVE
SAWMILL COVE
SILVER BAY
TIMBLEBERRY BAY
JAMESTOWN BAY
SITKA SOUND
SITKA CHANNEL
JAPONSKI ISLAND
WHITING HARBOR
WESTERN CHANNEL
MIDDLE CHANNEL
EASTERN CHANNEL
EMERSON ISLAND

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

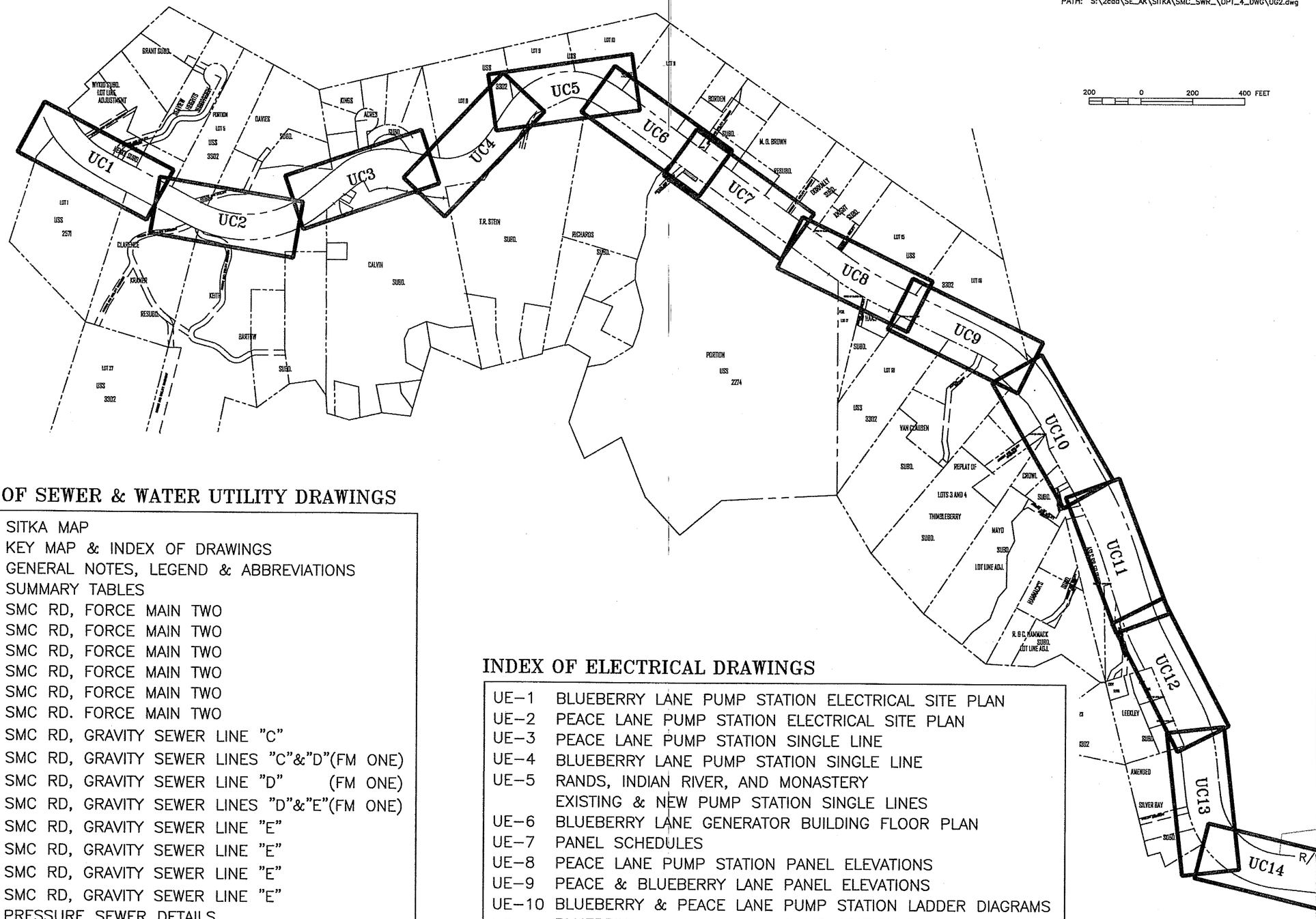
CBS UTILITITES

SITKA MAP

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UG1	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG1.dwg, 12/20/2005 3:07:02 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG2.dwg



INDEX OF SEWER & WATER UTILITY DRAWINGS

UG1	SITKA MAP
UG2	KEY MAP & INDEX OF DRAWINGS
UG3	GENERAL NOTES, LEGEND & ABBREVIATIONS
UG4	SUMMARY TABLES
UC1	SMC RD, FORCE MAIN TWO
UC2	SMC RD, FORCE MAIN TWO
UC3	SMC RD, FORCE MAIN TWO
UC4	SMC RD, FORCE MAIN TWO
UC5	SMC RD, FORCE MAIN TWO
UC6	SMC RD. FORCE MAIN TWO
UC7	SMC RD, GRAVITY SEWER LINE "C"
UC8	SMC RD, GRAVITY SEWER LINES "C"&"D"(FM ONE)
UC9	SMC RD, GRAVITY SEWER LINE "D" (FM ONE)
UC10	SMC RD, GRAVITY SEWER LINES "D"&"E"(FM ONE)
UC11	SMC RD, GRAVITY SEWER LINE "E"
UC12	SMC RD, GRAVITY SEWER LINE "E"
UC13	SMC RD, GRAVITY SEWER LINE "E"
UC14	SMC RD, GRAVITY SEWER LINE "E"
UD1	PRESSURE SEWER DETAILS
UPS1	BLUEBERRY LANE PUMP STATION
UPS2	PEACE LANE PUMP STATION
UPS3	PUMP STATION DETAILS
UA1	GENERATOR BUILDING, ARCHITECTURAL ELEVATIONS
UA2	GENERATOR BUILDING, STRUCTURAL DETAILS

INDEX OF ELECTRICAL DRAWINGS

UE-1	BLUEBERRY LANE PUMP STATION ELECTRICAL SITE PLAN
UE-2	PEACE LANE PUMP STATION ELECTRICAL SITE PLAN
UE-3	PEACE LANE PUMP STATION SINGLE LINE
UE-4	BLUEBERRY LANE PUMP STATION SINGLE LINE
UE-5	RANDS, INDIAN RIVER, AND MONASTERY EXISTING & NEW PUMP STATION SINGLE LINES
UE-6	BLUEBERRY LANE GENERATOR BUILDING FLOOR PLAN
UE-7	PANEL SCHEDULES
UE-8	PEACE LANE PUMP STATION PANEL ELEVATIONS
UE-9	PEACE & BLUEBERRY LANE PANEL ELEVATIONS
UE-10	BLUEBERRY & PEACE LANE PUMP STATION LADDER DIAGRAMS
UE-11	BLUEBERRY & PEACE LANE PUMP STATION DETAIL, TRENCH DETAIL, & GENERATOR DETAILS
UE-12	PORTABLE GENERATOR ON UTILITY TRAILER
UE-13	RANDS DRIVE PUMP PANEL ELEVATIONS
UE-14	MONASTERY STREET PUMP PANEL ELEVATIONS
UE-15	INDIAN RIVER SERVICE EQUIPMENT ELEVATIONS

Tue, 20/Dec/05 03:54PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

KEY MAP & INDEX OF DRAWINGS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES KEY MAP & INDEX OF DRAWINGS

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UG2	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG2.dwg, 12/20/2005 3:54:03 PM

GENERAL NOTES

1. THE CONTRACTOR SHALL ARRANGE FOR UTILITY LOCATES PRIOR TO ANY EXCAVATION. UNDERGROUND POWER, TELEPHONE AND TELEVISION LINES SHOWN ON THE DRAWINGS INDICATE THEIR EXISTENCE ONLY AND DO NOT SUBSTITUTE FOR FIELD LOCATES.

2. PRIOR TO DISRUPTION OF WATER SERVICE THE CONTRACTOR SHALL EXCAVATE AND EXPOSE WATER SERVICES TO WHICH CONNECTIONS ARE TO BE MADE AND VERIFY THAT THE PIPE AND FITTINGS APPROPRIATE FOR THE CONDITIONS ARE ON SITE.

3. MAINTAIN WATER AND SEWER SERVICE TO RESIDENCES. WATER OUTAGES ARE ALLOWED BETWEEN 8:00 AM AND 5:00PM IF HOMEOWNERS ARE NOTIFIED 48 HOURS IN ADVANCE AND OUTAGES DO NOT EXCEED 4 HOURS. SEWER SERVICE IS TO BE MAINTAINED AT ALL TIMES.

4. THE CONTRACTOR SHALL COORDINATE WITH RESIDENTS THE FINAL LOCATION OF THE SEWER SERVICE PRIOR TO INSTALLATION.

5. THE CONTRACTOR SHALL GIVE AT LEAST 24 HOURS NOTICE TO THE CBS, UTILITIES DIVISION, PRIOR TO OPERATING ANY WATER VALVE. A REPRESENTATIVE OF THE CBS UTILITIES DIVISION SHALL BE GIVEN AN OPPORTUNITY TO BE PRESENT EACH TIME THAT A WATER VALVE IS OPERATED.

6. THE CONTRACTOR SHALL BE AWARE THAT CLOSURE OF AN EXISTING WATER VALVE DOES NOT MEAN THAT 100% OF THE FLOW WILL BE STOPPED. EXPECT AND PREPARE FOR THE EVENT THAT SMALL FLOW WILL CONTINUE THROUGH THE CLOSED VALVE.

7. THE WATER AND SEWER PIPE LOCATIONS AND ELEVATIONS SHALL BE ADJUSTED TO MAINTAIN NECESSARY CLEARANCE FROM EXISTING UTILITIES WITHOUT EXTRA COMPENSATION.

8. WATER AND PRESSURE SEWER PIPE ELEVATIONS AND PLAN GRADES ARE SUBJECT TO FIELD ADJUSTMENT TO MAINTAIN 5 FOOT MINIMUM COVER. LESS THAN 5 FOOT MINIMUM COVER IS NOT PERMITTED, EXCEPT AS SHOWN. SEWER LINES ARE TO CROSS A MINIMUM OF 18" UNDER EXISTING & NEW WATER LINES. UNLESS OTHERWISE NOTED OR SHOWN.

9. PROPERTY DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER. UNPAVED ROADS AND DRIVES SHALL BE RESTORED WITH MATERIALS SIMILAR OR BETTER THAN ADJACENT MATERIALS AND ALL BANKS AND SLOPES SHALL BE RECONSTRUCTED TO MATCH ADJACENT BANKS AND SLOPES.

10. CONTRACTOR SHALL INSTALL TEMPORARY FILTRATION DEVICES CONSISTING OF BUT NOT LIMITED TO HAY BALES, FILTER FABRIC FENCES, SETTLING PONDS, ETC., TO PROHIBIT SILT-LADEN TRENCH DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF FROM ENTERING ADJACENT STREAMS AND LAKES. DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF SHALL NOT BE ALLOWED TO ENTER A ROADSIDE DITCH OR OTHER TRIBUTARY WITHIN 200 FEET OF A STREAM.

11. CONTRACTOR IS RESPONSIBLE FOR THE QUALITY OF THE DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF THAT ENTERS ADJACENT STREAMS AND IS, THEREFORE, RESPONSIBLE FOR VIOLATIONS AND PENALTIES RESULTING FROM ITS OPERATIONS.

12. STATIONS AND ANGLES OF THE PIPE BENDS ARE SHOWN ON THE DRAWINGS FOR THE CONTRACTOR'S MATERIAL TAKE-OFF. IF FIELD ADJUSTMENTS REQUIRE OTHER STATIONS AND ALIGNMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING THE NECESSARY BENDS AT NO ADDITIONAL COST TO THE CITY AND BOROUGH OF SITKA.

13. PIPE ALIGNMENT & DEPTH SHALL BE RECORDED BY SURVEY PRIOR TO BURIAL FOR INCLUSION ON AS-BUILT DRAWINGS.

14. DEWATERING PIPES SHALL NOT BE LAID ACROSS ADJACENT STREETS WITHOUT PERMISSION OF THE ENGINEERING DEPARTMENT OF THE CITY AND BOROUGH OF SITKA.

15. CONTRACTOR SHALL RESTORE ALL LANDSCAPING AND OTHER IMPROVEMENTS TO A CONDITION EQUAL TO OR BETTER THAN BEFORE CONSTRUCTION STARTED. CONTRACTOR SHALL MEET WITH EACH HOMEOWNER PRIOR TO CONSTRUCTION TO DISCUSS CONSTRUCTION AND LANDSCAPING REQUIREMENTS. THE ENGINEER SHALL BE PRESENT AT THESE MEETINGS TO DOCUMENT HOMEOWNER CONCERNS AND TO PHOTOGRAGH PRECONSTRUCTION CONDITIONS. CONTRACTOR SHALL MEET WITH EACH HOMEOWNER AFTER CONSTRUCTION (EXIT INTERVIEW) TO CONFIRM ALL LANDSCAPING AND OTHER IMPROVEMENTS HAVE BEEN RESTORED TO A CONDITION EQUAL TO OR BETTER THAN BEFORE CONSTRUCTION STARTED. CONTRACTOR SHALL FIX ANY LANDSCAPING OR OTHER IMPROVEMENTS THAT HAVE NOT BEEN RESTORED.

16. ALL GRAVITY SEWER SHALL BE CLASS 50 DUCTILE IRON PIPE (DIP).

17. THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES HAS CONDUCTED SOME EXPLORATIONS AND TESTS OF SUBSURFACE SOILS IN THE VICINITY OF THIS PROJECT. THE CONTRACTOR IS ENCOURAGED TO SECURE AND REVIEW THIS INFORMATION. THE EXPLORATIONS AND TESTS ARE NOT TO BE CONSIDERED COMPLETE OR COMPREHENSIVE. THE CONTRACTOR IS RESPONSIBLE FOR ANY FURTHER EXPLORATIONS OR TESTS THAT MAY BE NECESSARY AND ANY INTERPRETATION, INTERPOLATION, OR EXTRAPOLATION THAT IT MAKES OF ANY EXPLORATION OR TESTS OF SUBSURFACE SOILS.

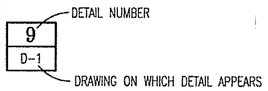
LEGEND

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG3.dwg

PLAN

REMOVE & REPLACE	NEW	EXISTING
		HOUSE No. (105)
		HOUSE
		OIL TANK
		SATELLITE ANTENNA
		WALK
		STAIR
		CONCRETE
		FENCE
		SILT FENCE
		BRUSHLINE
		TREE
		ROCK OUTCROP / ROCK CUT
		BOULDERS/ROCKERY
		DITCH OR STREAM
		18" DIP — CULVERT (SIZE & MATERIAL NOTED)
		PAVEMENT
		EDGE OF TRAVELED WAY
		GUARDRAIL
		SIGN
		PROPERTY LINE / RIGHT-OF-WAY
		EASEMENT
		CATCH BASIN
		WATER SERVICE
		-W- WATER PIPE
		VALVE
		PLUG
		FIRE HYDRANT
		FLUSH PORT (SEWER)
		-S- GRAVITY SANITARY SEWER
		FORCE MAIN
		SEWER SERVICE, GRAVITY: 4" UNLESS OTHERWISE NOTED
		SEWER SERVICE, PRESSURE: 1 1/4" UNLESS OTHERWISE NOTED
		SEWER SERVICE, PRESSURE/GRAVITY: 1 1/4" (PRESSURE) UNLESS OTHERWISE NOTED
		TBM or SURVEY PIN
		MONUMENT
		-E, T, W- UNDERGROUND UTILITY (ELEC, TELE, TV)
		UTILITY PEDESTAL (ELEC, TELE, TV)
		UTILITY POLE
		GUY

TYPICAL DETAIL REFERENCE



PROFILE

NEW	EXISTING	
4" HDPE @ S=0.00000		WATER PIPE (QUANTITY, SIZE, & MATERIAL NOTED)
75		ELEVATION IN FEET
	0	CULVERT, STORM DRAIN, OR WATER AS NOTED
		INSULATION

ABBREVIATIONS

%	PERCENT
&	AND
#	NUMBER
℄	CENTERLINE
Ø	DIAMETER
@	AT
ABAND	ABANDON
ABS	ACRYLONITRILE BUTADIENE STYRENE
A.C.	ASPHALTIC CONCRETE
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATERWORKS ASSOCIATION
BV	BUTTERFLY VALVE
CBS	CITY & BOROUGH OF SITKA
C.I.	CAST IRON
CIP	CAST IRON PIPE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONN	CONNECT
CPLG	COUPLING
CU FT	CUBIC FEET
Cu	COPPER
D.I.P.	DUCTILE IRON PIPE
DISCH.	DISCHARGE
DET	DETAIL
DIA	DIAMETER
DWG	DRAWING
DWV	DRAIN WASTE AND VENT
EA	EACH
ECC	ECCENTRIC
EL	ELEVATION IN FEET
ELEV	ELEVATION
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EW	EACH WAY
EXIST	EXISTING
FCA	FLANGED COUPLING ADAPTER
FH	FIRE HYDRANT & ASSEMBLY
FL	FLANGE, FLANGED
FPT	FEMALE PIPE THREAD
GA	GUAGE
GALV	GALVANIZE, GALVANIZED
GIP	GALVANIZED IRON PIPE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HWY	HIGHWAY
I.E.	INVERT ELEVATION IN FEET
I.D.	INSIDE DIAMETER
LAT	LATERAL
LDS	LATTER DAY SAINTS
LF	LINEAR FEET
LG	LONG
MAX	MAXIMUM
MFR'S	MANUFACTURER'S
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PE	PLAIN END
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYLCHLORIDE
QTY	QUANTITY
REQ'D	REQUIRED
R.O.W.	RIGHT OF WAY
S	SLOPE, SEWER
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
SGA	SHOTGUN ALLEY
STA	STATION
STD	STANDARD
STL	STEEL
TYP	TYPICAL
W	WATER
w/	WITH
MJRS	MECHANICAL JOINT RESTRAINED JOINT

Tue, 20/Dec/05 03:54PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

GENERAL NOTES, LEGEND & ABBREVIATIONS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH — JAMES L. DORN CE 5323 — REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES GENERAL NOTES, LEGEND & ABBREVIATIONS

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UG3	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG3.dwg, 12/20/2005 3:54:37 PM

PATH: D:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG4.dwg

Fri, 13/Jan/06 12:37PM
SIR
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER 1

ATTACHMENT NUMBER 9

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

GRAVITY SEWER

SHEET(S)	STRUCTURE I.D.	QUANTITY MANHOLE	QUANTITY 10" D.I.P.	HIGHWAY STATION, OFFSET	SEWER STATION
UC1	EXIST M.H.	0		121+10, 43R	0+28
UC1	GS LINE "A"		108 LF		
UC1	MH A-1	1		122+09, 37R	0+80
UC7	MH PS-2	1		150+31, 32R	29+33
UC7	GS LINE "C"		244 LF		
UC7	MH C-1	1		152+56, 32R	31+76
UC7	GS LINE "C"		235 LF		
UC7	MH C-2	1		154+91, 34R	34+11
UC8	GS LINE "C"		261 LF		
UC8	MH C-3	1		157+51, 36R	36+72
UC8	GS LINE "C"		119 LF		
UC8	MH C-4	1		158+67, 32R	37+91
UC8	MH D-5	1		159+56, 28R	38+82
UC8, UC9	GS LINE "D"	215 L.F.	~~<250 LF~~		
UC9	MH D-4	1		162+14, 26R	41+40
UC9	GS LINE "D"	156 L.F.	~~<146 LF~~		
UC9	MH D-3	1		163+14, 35R	42+86
UC9	GS LINE "D"		79 LF		
UC9	MH D-2	1		164+46, 26R	43+65
UC9, UC10	GS LINE "D"		156 LF		
UC10	MH D-1	1		166+08, 24R	45+21
UC10	GS LINE "D"		160 LF		
UC10	MH PS-1	1		~~167+56, 25R~~	46+81
UC10	GS LINE "E"	84 LF	~~<48 LF~~	167+40	
UC10	MH E-1	1		168+20, 23R	47+20
UC10	GS LINE "E"	133 L.F.	~~<137 LF~~		
UC10	MH E-2	1		169+57, 20R	48+66
UC10, UC11	GS LINE "E"		154 LF		
UC11	MH E-3	1		171+12, 21R	50+28
UC11	GS LINE "E"		197 LF		
UC11	MH E-4	1		173+11, 21R	52+17
UC11, UC12	GS LINE "E"		335 LF		
UC12	MH E-5	1		176+42, 40R	55+52
UC12	GS LINE "E"	318 L.F.	~~<328 LF~~		
UC12	MH E-6	1		~~179+65, 38R~~	58+75
UC12	GS LINE "E"	148 L.F.	~~<135 LF~~	179+60 (42' RT)	
UC12	MH E-7	1		~~181+09, 29R~~	60+10
UC13	GS LINE "E"	202 L.F.	~~<210 LF~~	181+17 (52' RT)	
UC13	MH E-8	1		183+23, 29R	62+20
TOTAL		20	3305 LF		

FORCE MAIN

SHEET(S)	STRUCTURE I.D.	GRAVITY SEWER MANHOLE	QUANTITY PUMP STATION	QUANTITY 6" HDPE	HIGHWAY STATION, OFFSET	SEWER STATION
UC1	MH A-1	X			122+09, 37R	0+80
UC1 – U-6	FORCE MAIN TWO			2,834 LF		
U-6	BLUEBERRY LN. P/S		1		150+24, 40R	29+18
UC8	GENERATOR BLDG.	(SEE SHEETS UA-1 & UA-2)			150+53, 40R	29+71
UC8	MH C-4	X			158+67, 32R	37+91
UC8 – UC10	FORCE MAIN ONE		840 LF	~~<878 LF~~		
UC10	PEACE LN. P/S		1		~~167+62~~, 39R	46+81
TOTAL			2	3,712 LF	161+32	

App 4" @ 159+80 (50' RT)

EXISTING WATERLINE JOINT RESTRAINT
HIGHWAY STATION 154+75 TO 155+90

AIR RELEASE VAULT
HIGHWAY STATION 177+83, 32 R

RESIDENTIAL PUMP STATION
HIGHWAY STATION 184+13, 113R

FIRE HYDRANT
HIGHWAY STATION 179+68, 47R

* DETAIL 50-12 MODIFIED AS FOLLOWS; USE AN MJ CAP WITH 2 INCH THREADED BOSS, AND FORD C87-55 (1-¼") OR C87-77 (2") COMPRESSION FITTING, IN LIEU OF APADEK FLANGE.

SEWER SERVICES *

SHT	CBS STD DET 50-11 GRAVITY 4"	6"	8"	STD DET 50-12 PRESS/GRAV 1 1/4"	2"	DET 10, SHEET UD-1 PRESSURE 1 1/4"	2"	MULTI SERV 2"	BEALE PROP 2"
UC1						1			
						1			
UC2								1	
						1			
						1			
UC3						1 →	\		
						1			
UC4								1	
						1			
UC5							1		
						1			
						1 →	\		
UC6						1			
							1		
						1			
UC7							1		
	1								
		1							
	1								
	1								
	1 →	\							
	1								
		1							
UC8	1								
	1								
	1								
	1								
		1							
	1 →	\							
UC9	1			1					
								1	
				1					
		1							
UC10				1					
					1				
				1					
	1								
	1								
UC11									
					1				
		1							
					1				
UC12					1				
				1					
				1					
UC13				1					
UC14								1	
TOTAL	11	3	1	8	4	16	3	4	1
	13	4	1	7	3	11	6	4	1

WATER SERVICES

SHT	DISCONNECT EXISTING WATER SERVICE	1"	1 1/2"	2"	6"	HIGHWAY STATION, OFFSET	SEWER STA.	
UC1						123+96, 52L	2+78	
						125+10, 52L	3+92	
UC2						127+60, 51L	5+75	
						127+80, 49R	6+63	
				1		~~127+80, 51L~~	~~6+80~~	DELETE
	1					127+90	6+79	
					1	127+99, 50R	N/A	
						128+15, 50R	6+87	
UC3						133+35, 47R	12+31	
	1					133+48	12+37	
	134+05 (47' RT) →	1		1		133+51, 47R	N/A	
						~~133+66, 47R~~	~~12+59~~	→ 134+00 (47' RT)
		1				134+55, 50L	N/A	
	1					134+60	13+45	
						134+69, 51L	13+50	
						135+05, 51R	13+90	
						137+10, 54L	15+95	
						~~138+95, 55R~~	~~17+27~~	→ 139+32 (64' RT)
		1				138+62, 56R	N/A	DELETE
						141+56, 27L	20+48	
						141+97, 53R	21+67	
				1 →	\	142+55, 57R	N/A	
						~~144+01, 50L~~	~~23+60~~	→ 144+10 (50' LT)
		1				144+17, 50L	N/A	
	@ 145+45 (LT)					144+68, 50L	23+60	
						~~145+42, 60R~~	~~23+95~~	→ DELETE
		1				~~145+21, 50R~~	N/A	→ DELETE
						145+42, 50R	24+23	
	145+52 (LT) <				1	145+44, 50L	24+25	
						146+88, 51L	25+32	
						148+84, 48R	27+64	
					1	148+96, 50R	N/A	→ DELETE
						~~148+98, 51L~~	~~27+83~~	→ 149+50 (51' LT)
						150+07, 49R	29+33	
						150+10, 51L	29+50	
						152+42, 51L	31+61	
	1					153+18	32+38	
					1	153+28, 51L	32+56	
	152+77 (49' RT) <				1	152+67, 49R	31+85	
						153+39, 50L	32+57	
						153+94, 51L	33+13	
						154+24, 51L	33+47	
						156+04, 50L	35+23	
						156+68, 51L	35+87	
						157+72, 50R	36+92	
						158+70, 50R	37+92	
						158+82, 49L	39+30	
					1	158+90, 48L	38+06	
						160+37, 50R	39+61	
						163+58, 44R	42+78	
						163+71, 43R	42+92	
	@ 163+80 (RT)		1			163+86, 40R	N/A	
						164+13, 20L	43+40	
						167+40, 50R	46+46	
						167+79, 52R	46+87	
						168+11, 59R	47+16	
					1	168+73, 65R	47+82	
						168+83, 80L-60L	47+91	
						169+70, 67R	48+77	
	1					169+89	48+91	
				1		~~179+98, 66R~~	N/A	→ 178+07 (62' RT)
						171+09, 67R	50+12	
				1		~~174+39, 68R~~	N/A	→ 171+10 (66' RT)
						172+30, 67R	50+95	
						~~175+23, 70R~~	~~53+78~~	DELETE
						177+83, 53R	56+92	
						~~178+26, 54R~~	~~57+35~~	→ 178+75 (53' RT)
						179+94, 65R	59+05	
	180+05 (RT) →	1				~~180+63, 63R~~	~~59+64~~	→ 180+25 (63' RT)
						~~183+31, 66R~~	~~62+43~~	→ 183+60 (66' RT)
						190+12, 61L	62+20	
TOTAL	1	1	1	5	4	1	6	4	
	7	5							

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SUMMARY TABLES

PREPARED BY: CARSON DORN, INC.
DESIGNED BY: J. Dorn

CHECKED BY: J. Dorn
DRAWN BY: RASH/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES

SUMMARY TABLES

PROJECT DESIGNATION NUMBER: 68023/68926	
STATE: ALASKA	YEAR: 2005
SHEET NUMBER: UG4	TOTAL SHEETS:

D:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UG4.dwg, 1/13/2006 12:37:08 PM

GRAVITY SEWER

SHEET(S)	STRUCTURE I.D.	QUANTITY MANHOLE	QUANTITY 10" D.I.P.	HIGHWAY STATION, OFFSET	SEWER STATION
UC1	EXIST M.H.	0		121+10, 43'R	0-28
UC1	GS LINE "A"		108 LF		
UC1	MH A-1	1		122+09, 37'R	0+80
UC7	**MH PS-2**	1		150+31, 32'R	29+33
UC7	GS LINE "C"		244 LF		
UC7	MH C-1	1		152+56, 32'R	31+76
UC7	GS LINE "C"		235 LF		
UC7	MH C-2	1		154+91, 34'R	34+11
UC8	GS LINE "C"		261 LF		
UC8	MH C-3	1		157+51, 36'R	36+72
UC8	GS LINE "C"		119 LF		
UC8	MH C-4	1		158+67, 32'R	37+91
UC8	MH D-5	1		159+66, 28'R	38+82
UC8, UC9	GS LINE "D"		258 LF		
UC9	MH D-4	1		162+14, 28'R	41+40
UC9	GS LINE "D"		146 LF		
UC9	MH D-3	1		163+14, 35'R	42+86
UC9	GS LINE "D"		79 LF		
UC9	MH D-2	1		164+46, 26'R	43+65
UC9, UC10	GS LINE "D"		156 LF		
UC10	MH D-1	1		166+08, 24'R	45+21
UC10	GS LINE "D"		160 LF		
UC10	**MH PS-1**	1		167+59, 25'R	46+81
UC10	GS LINE "E"		48 LF		
UC10	MH E-1	1		168+20, 23'R	47+29
UC10	GS LINE "E"		137 LF		
UC10	MH E-2	1		169+57, 20'R	48+66
UC10, UC11	GS LINE "E"		154 LF		
UC11	MH E-3	1		171+12, 21'R	50+28
UC11	GS LINE "E"		197 LF		
UC11	MH E-4	1		173+11, 21'R	52+17
UC11, UC12	GS LINE "E"		335 LF		
UC12	MH E-5	1		176+42, 40'R	55+52
UC12	GS LINE "E"		323 LF		
UC12	MH E-6	1		179+65, 38'R	58+75
UC12	GS LINE "E"		135 LF		
UC12	MH E-7	1		181+09, 29'R	60+10
UC13	GS LINE "E"		210 LF		
UC13	MH E-8	1		183+23, 29'R	62+20
TOTAL		20	3305 LF		

EXISTING WATERLINE JOINT RESTRAINT

HIGHWAY STATION
154+75 TO 155+90

AIR RELEASE VAULT

HIGHWAY STATION
177+83, 32' R

FORCE MAIN

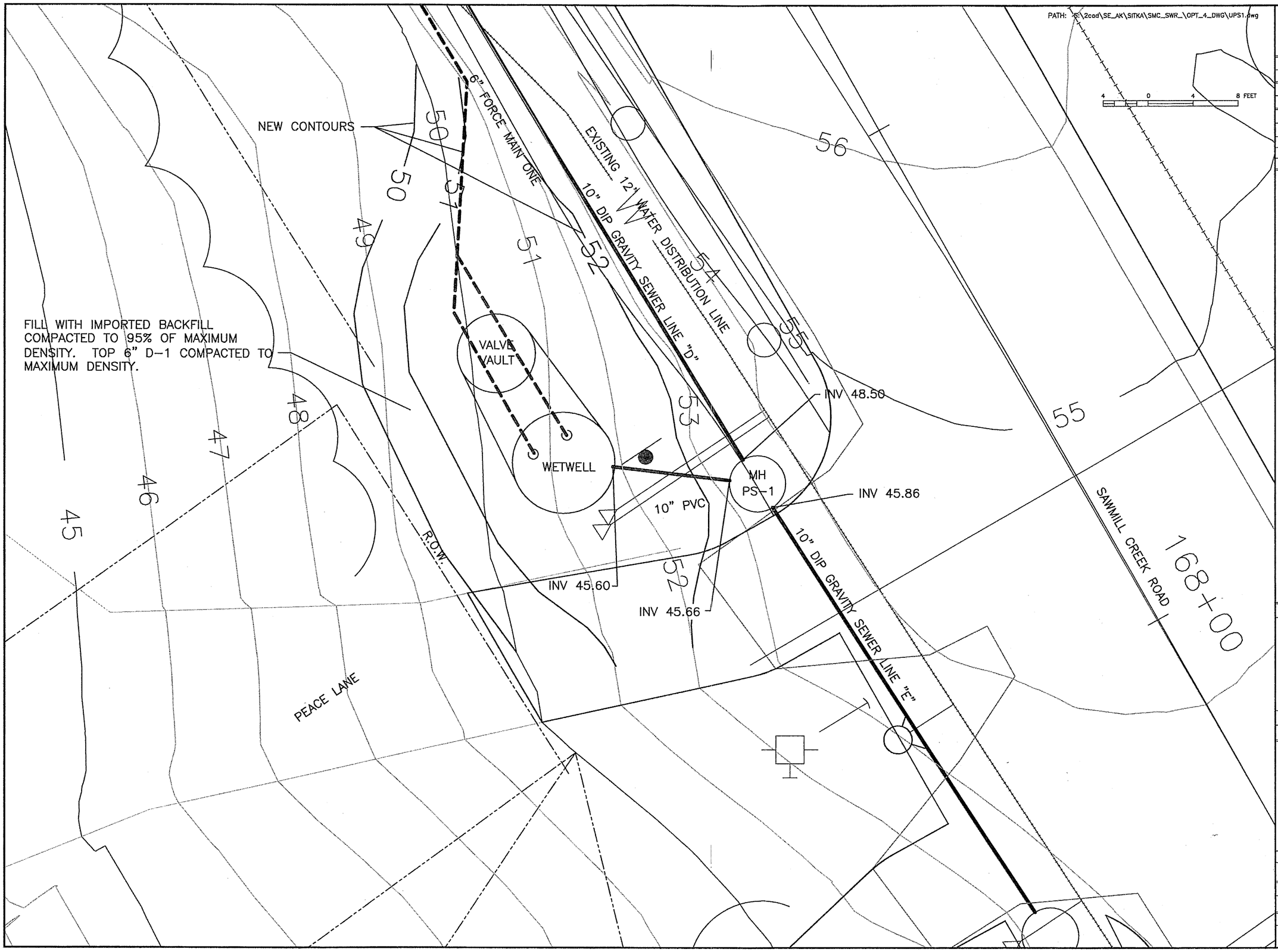
SHEET(S)	STRUCTURE I.D.	GRAVITY SEWER MANHOLE	QUANTITY PUMP STATION	QUANTITY 6" HDPE	HIGHWAY STATION, OFFSET	SEWER STATION
UC1	MH A-1	X			122+09, 37'R	0+80
UC1 -- U-6	FORCE MAIN TWO			2,834 LF		
U-6	BLUEBERRY LN. P/S		1		150+24, 40'R	29+18
UC6	GENERATOR BLDG	(SEE SHEETS UA-1 & UA-2)			150+53, 40'R	29+71
UC8	MH C-4	X			158+67, 32'R	37+91
UC8 -- UC10	FORCE MAIN ONE			878 LF		
UC10	PEACE LN. P/S		1		167+62, 39'R	46+81
TOTAL			2	3,712 LF		

SEWER SERVICES

SHT	CBS STD DET 50-11 GRAVITY 4"	6"	8"	STD DET 50-12 PRESS/GRAV 1 1/4"	2"	DET 10, SHEET UD-1 PRESSURE 1 1/4"	2"	MULTI SERV 2"	BEALE PROP 2"
UC1						1			
						1			
UC2								1	
						1			
						1			
UC3						1			
						1			
								1	
						1			
UC4						1		1	
						1			
UC5						1			
						1			
						1			
						1			
UC6						1			
						1			
UC7							1		
			1						
	1								
	1								
	1								
	1								
		1							
	1								
UC8	1								
	1								
	1								
		1							
				1					
								1	
				1					
	1								
UC10				1					
					1				
				1					
	1								
	1								
UC11									
					1				
		1							
					1				
UC12					1				
				1					
				1					
				1					
UC13				1					
UC14									1
TOTAL	11	3	1	8	4	17	2	4	1

WATER SERVICES

DISCONNECT EXISTING WATER SERVICE	1"	1 1/2"	2"	6"
1				
				1
1				
			1	
	1			
1				
	1			
			1	
	1			
				1
	1			



PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS1.dwg

Tue, 20/Dec/05 03:43PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
PEACE LANE PUMP STATION
SITE PLAN

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA 49TH JAMES L. DORN CE 5323 REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES
PEACE LANE
PUMP STATION
SITE PLAN

PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UPS1	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS1.dwg, 12/20/2005 3:43:06 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS2.dwg

Tue, 20/Dec/05 03:44PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

4 0 4 8 FEET

ADDENDUM NUMBER
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

6" HDPE FORCE MAIN TWO

EXISTING 24" WATER TRANSMISSION LINE

EXISTING 30" CMP

ABANDON IN PLACE
REMOVE AS NECESSARY

2" PRESSURE SERVICE

FILL AREA

VALVE VAULT

WETWELL

10" DIP

MH
PS-2

INV 65.10

INV 64.9

INV 64.8

10" DIP GRAVITY SEWER LINE "C"

SAWMILL CREEK ROAD

FILL WITH IMPORTED BACKFILL COMPACTED TO 95% OF MAXIMUM DENSITY. TOP 6" D-1 COMPACTED TO MAXIMUM DENSITY.

BLUEBERRY LANE

R.O.W.

GENERATOR BUILDING

USPS MAIL BOXES

15'x 58' EASEMENT

NEW CONTOURS

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

SAWMILL CREEK ROAD
BLUEBERRY LANE PUMP STATION
SITE PLAN

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
49TH
JAMES L. DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASill/GDM

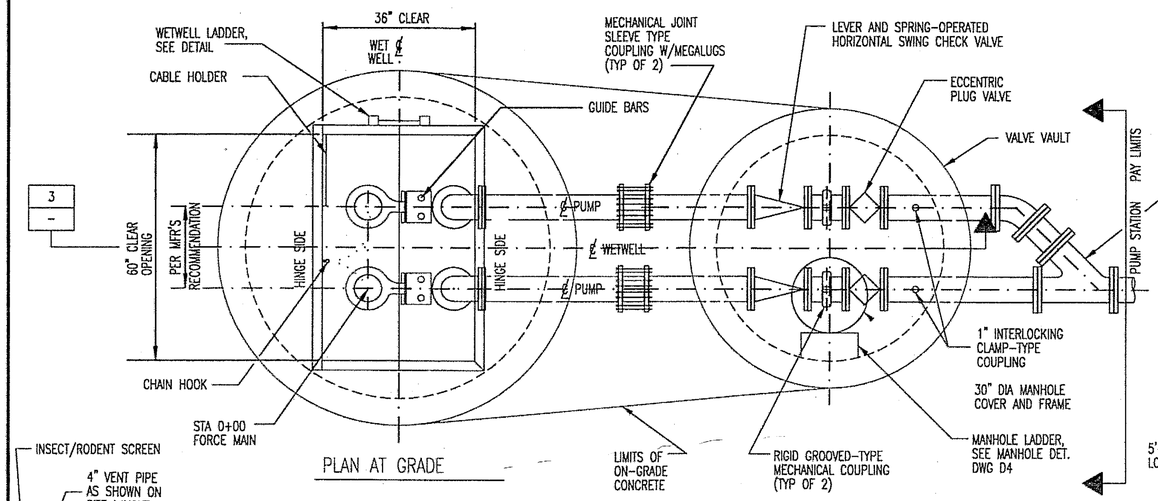
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

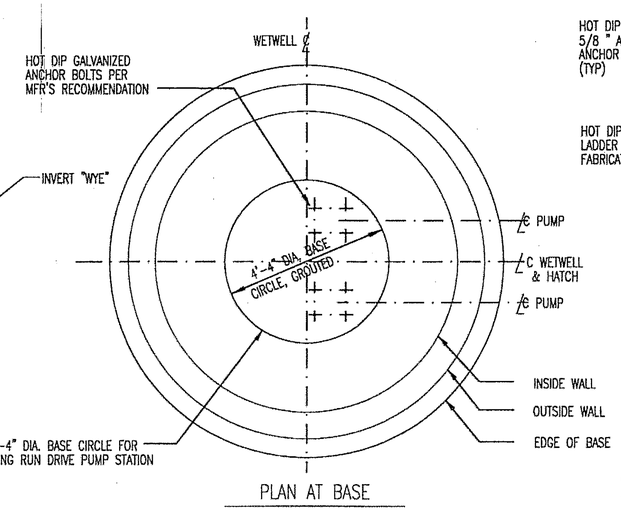
CBS UTILITIES
BLUEBERRY LANE
PUMP STA.
SITE PLAN

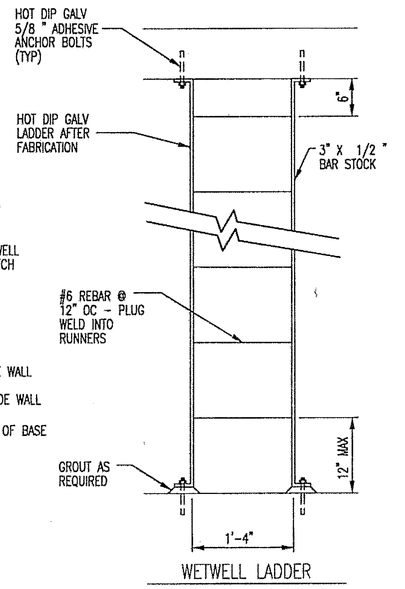
PROJECT DESIGNATION NUMBER	
68023/68926	
STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UPS2	120

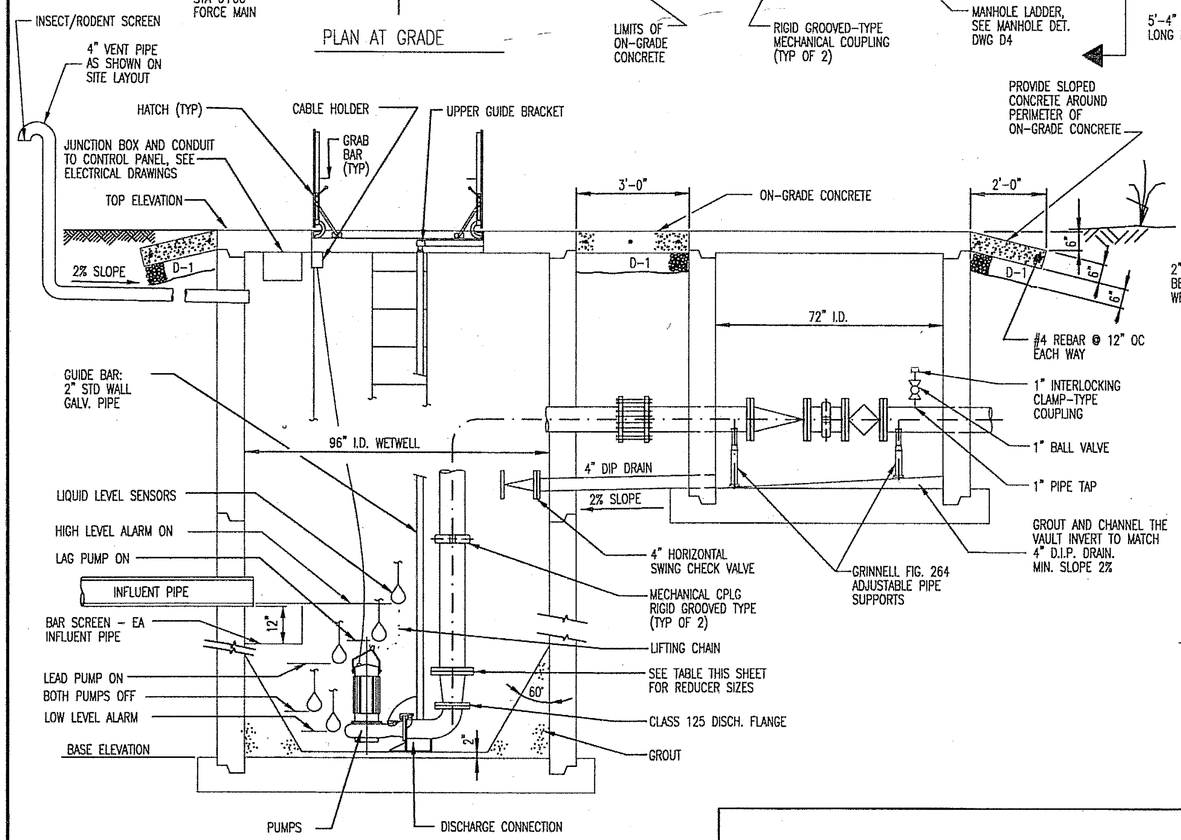
S:\12cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS2.dwg, 12/20/2005 3:43:55 PM

PATH: S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS3.dwg



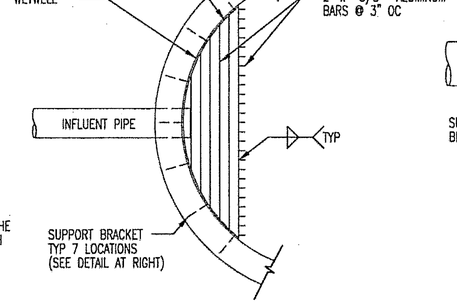




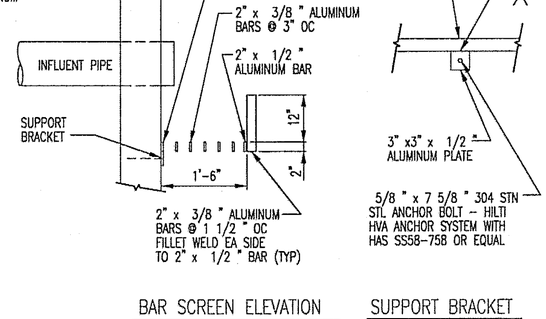


NOTE:
WETWELL PENETRATIONS FOR THE 4" DIP DRAIN, CONDUIT, VENT PIPE AND FORCE MAIN SHALL BE MADE USING "LINK MODULAR SEALS" AS MANUFACTURED BY THUNDERLINE CORP. OR APPROVED EQUAL.

SECTION 3



BAR SCREEN PLAN VIEW



BAR SCREEN ELEVATION

SUPPORT BRACKET
(TYP 7 LOCATIONS EA BAR SCREEN)

ELEVATIONS

PUMP STATION	WETWELL		LIQUID LEVEL SENSORS					FORCE MAIN SIZE / IE	INFLUENT LINE SIZE / IE	REDUCER SIZES	REFERENCE DRAWINGS
	BASE	TOP	LOW LEVEL ALARM	BOTH PUMPS OFF	LEAD PUMP ON	LAG PUMP ON	HIGH LEVEL ALARM				
PEACE LANE PUMP STATION	40.6'	51.0'	41.6'	42.1'	44.1'	44.6'	45.6'	6"/ 45.5'	10"/ 45.6'		
BLUEBERRY LANE PUMP STATION	59.8'	70.0'	60.8'	61.3'	63.3'	63.8'	64.8'	6"/ 64.5'	10"/ 64.8'		

Tue, 20/Dec/05 03:44PM
Administrator
PLOT:
PSPACE 1=1(F) OR MSPACE 1=1(F)

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SAWMILL CREEK ROAD UPGRADE
SHOTGUN ALLEY TO BLUE LAKE ROAD
CBS UTILITY UPGRADE RSA No. 68783

BLUEBERRY LANE, PEACE LANE
PUMP STATION
DETAILS

PREPARED BY: CARSON DORN INC.

DESIGNED BY: J. Dorn

STATE OF ALASKA
JAMES L DORN
CE 5323
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: J. Dorn

DRAWN BY: RASIII/GDM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

CBS UTILITIES BLUEBERRY LANE, PEACE LANE PUMP STA. DETAILS

PROJECT DESIGNATION NUMBER
68023/68926

STATE	YEAR
ALASKA	2005
SHEET NUMBER	TOTAL SHEETS
UPS3	120

S:\2cad\SE_AK\SITKA\SMC_SWR_\OPT_4_DWG\UPS3.dwg, 12/20/2005 3:44:46 PM