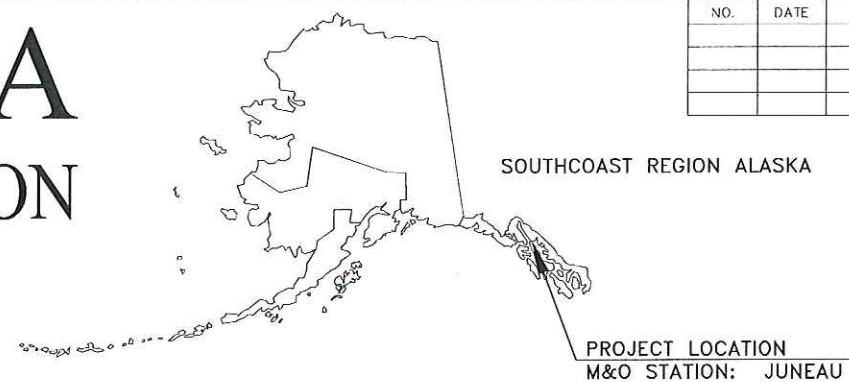


FILE C:\SEA\68659\Plans\Sheets\68659 A1 TITLE SHEET.dwg
 DATE 5/10/2017 7:22 LAYOUT A1
 DESIGNED R. WARNER
 CHECKED C. GOINS
 DRAFTED R. WARNER

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES



NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL 'A' SHEETS
			ALASKA	Z686590000/0003(190)	2017	A1	A3
						PLAN SET TOTAL	15
CDS ROUTE: 296150			MILEPOINT: 0.78 TO 6.50				
CDS ROUTE: 296110			MILEPOINT: 1.16 TO 1.42				

March 1, 2018

PROPOSED CULVERT PROJECT

SEA: SR REGION-WIDE NON-NHS CULVERT REPAIR/REPLACE

JUNEAU, ALASKA

DOUGLAS HIGHWAY

PROJECT NO. Z686590000/0003(190)

GRADING, DRAINAGE, CULVERTS

The undersigned hereby certifies that this duplicated document is an exact and true copy of the original.

Cody Salas

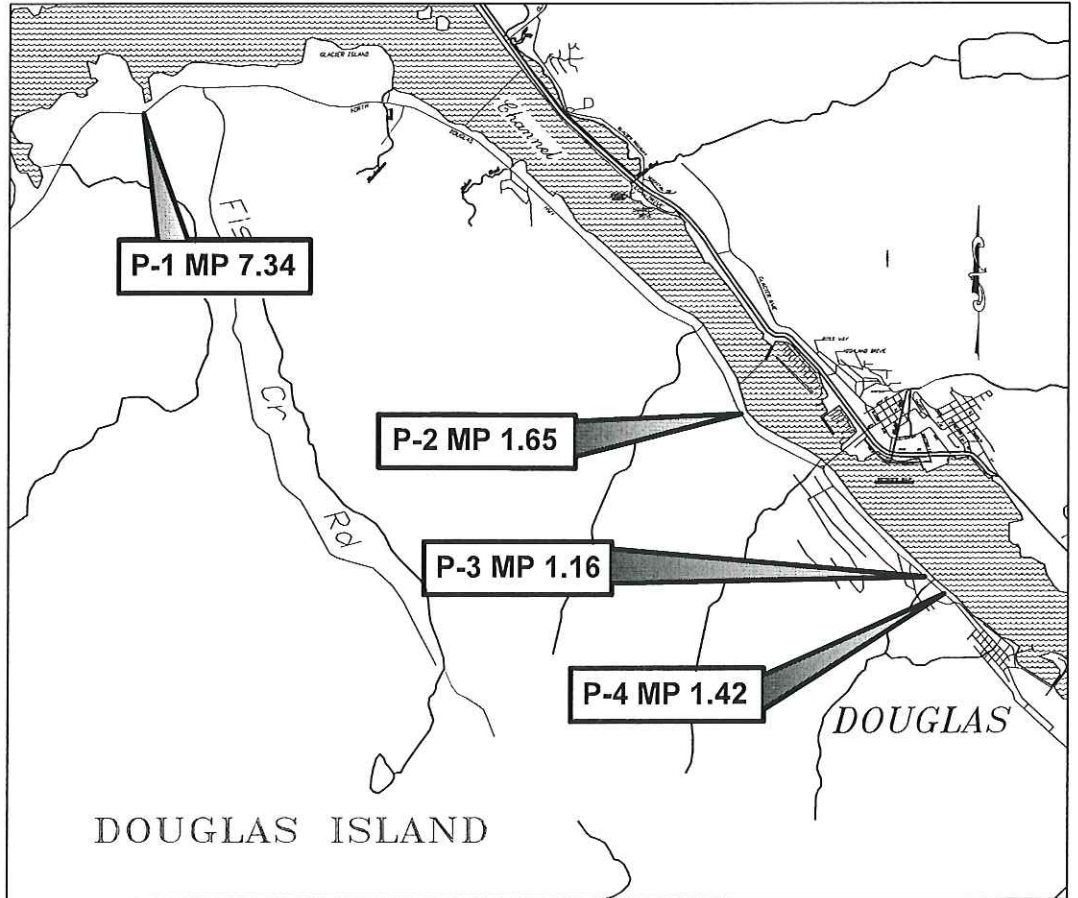
INDEX	
Sheet Number	Sheet Title
A1	TITLE SHEET
A2	SURVEY CONTROL
A3	LEGENDS & SYMBOLS
C1	ESTIMATE OF QUANTITIES & BASIS OF ESTIMATE
D1	SUMMARY TABLES
E1	AQUATIC LIFE PASSAGE P-1 DETAILS
E2	RECOMMENDED STREAM DEWATERING DETAILS
E3	P-2 DITCH, EXTENSION AND EMBANKMENT RESTORATION DETAILS
F1	PLAN & PROFILE FOR P-1
F2	PLAN & PROFILE FOR P-2
F3	PLAN & PROFILE FOR P-3
F4	PLAN & PROFILE FOR P-4
P1	EROSION & SEDIMENT CONTROL DETAILS
R1	P-1 ACCESS & EASEMENTS
T1	TRAFFIC CONTROL

PROJECT SUMMARY	
DOUGLAS HIGHWAY	
LENGTH OF PROJECT	41,818 FT. (7.92 MILES)
NUMBER OF CULVERTS	4

DESIGN DESIGNATIONS	
PROJECT TYPE	PREVENTATIVE MAINTENANCE
FUNCTIONAL CLASS	MAJOR COLLECTOR
ADT (2011) P-1	805
ADT (2011) P-2	3390
ADT (2011) P-3 & P-4	7967

As-Builts
 Contractor: Admiralty Construction, Incorporated
 Project Engineer: Dillon Tomaro
 Start Date: October 1, 2018
 End Date: November 6, 2018

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PROJECT ENGINEER:



VICINITY MAP

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

- C-03.10
- D-35.00

PLANS DEVELOPED BY: ROY WARNER
 USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811
 (907) 465-1763

APPROVED: *Pat Carroll* 7.17.17
 REGIONAL RECONSTRUCTION ENGINEER DATE
 PAT CARROLL, P.E.

CONCUR: *Michael J. Coffey* 7.17.17
 SOUTHCOAST REGIONAL DIRECTOR DATE
 MICHAEL J. COFFEY

DESIGNED: J.PAPO
 CHECKED: D.IGNOLOV
 DRAFTER: J.PAPO
 XREFS
 SCALE
 LAYOUT
 SCS
 DATE TIME
 3/13/2017 9:23
 DRAWING LOCATION
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	68659/0003(190)	2016	A2	15

Existing Property					
Point #	Northing	Easting	Description	Station	Offset
1003	480707.83	522919.87	SPINHOLE_LS-5713	1+69.21	18.78R
1004	480716.76	522923.79	PLASCAP_LS-4382	1+70.29	15.25R
1005	480745.63	522891.37	PLASCAP_LS-4382	1+78.57	27.36L

All **PROPERTY MONUMENTS** in this **existing property** table shall be **preserved and referenced** prior to disturbance and replaced at their original horizontal position. **A RECORD OF MONUMENT FORM SHALL BE SUBMITTED TO DOT FOR REVIEW PRIOR TO RECORDING FOR EACH MONUMENT.**

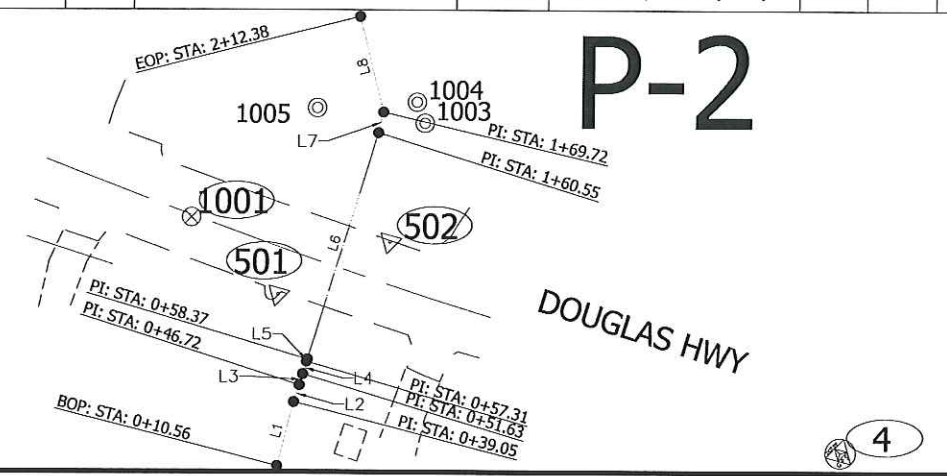
Centerline Monuments Douglas Highway					
Point #	Northing	Easting	Description	Station	Offset
1001	480750.35	522819.67	BC_2.5"_IN-MON-CASE	1+01.89	66.38L

EXISTING CENTERLINE MONUMENTS **SHALL BE PRESERVED IN PLACE.**

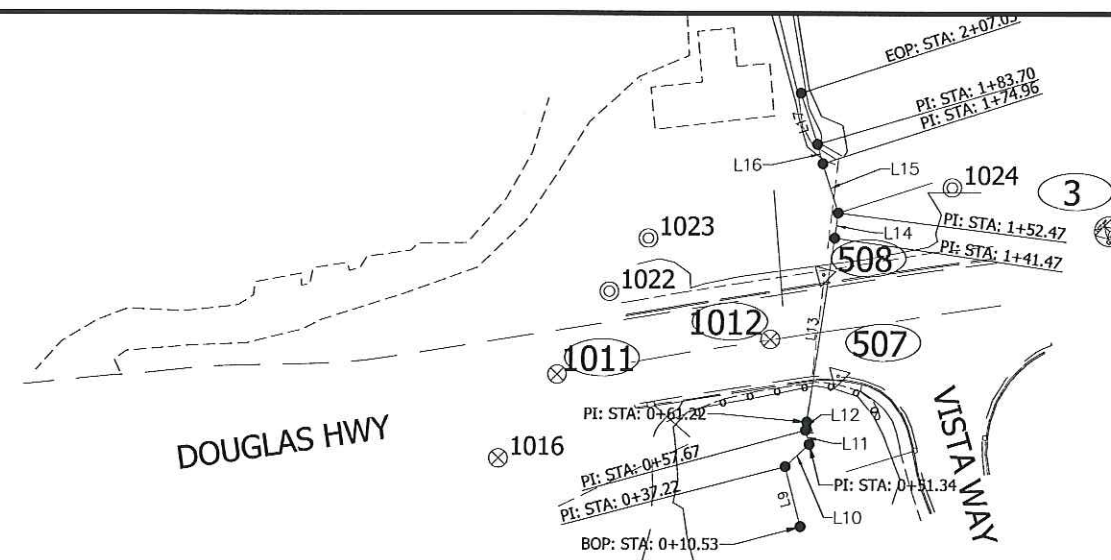
Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
4	480479.26	522948.00	74.03	GPS_ALCAP2.5"_DOT_SET	0+88.20	233.24R
5	480954.48	522710.20	71.09	GPS_ALCAP2.5"_DOT_SET	1+00.87	298.01L
501	480700.11	522822.98	74.49	MAG/WASH	0+81.27	20.45L
502	480682.19	522873.11	72.27	MAG/WASH	1+17.16	18.88R

P-2 Tables

All **SURVEY CONTROL** monuments in this table are provided strictly for survey control. Should any of them be destroyed during construction they **shall NOT** be replaced.



P-4



Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
2	474869.57	529380.13	60.66	GPS_ALCAP2.5"_DOT_SET	1+75.29	533.30L
3	474506.04	529916.63	70.59	GPS_ALCAP2.5"_DOT_SET	N/A	N/A
507	474544.52	529789.17	65.21	MAG/WASH	0+82.77	10.61R
508	474580.26	529815.35	66.39	MAG/WASH	1+25.14	2.33L

All **SURVEY CONTROL** monuments in this table are provided strictly for survey control. Should any of them be destroyed during construction they **shall NOT** be replaced.

Centerline Monuments Douglas Highway					
Point #	Northing	Easting	Description	Station	Offset
1011	474631.22	529703.15	BC_2.5"_IN-MON-CASE	0+65.83	110.34L
1012	474576.72	529779.34	BC_2.5"_IN-MON-CASE	0+94.19	21.07L

EXISTING CENTERLINE MONUMENTS **SHALL BE PRESERVED IN PLACE.**

P-4 Tables

All **PROPERTY MONUMENTS** in this **existing property** table shall be **preserved and referenced** prior to disturbance and replaced at their original horizontal position. **A RECORD OF MONUMENT FORM SHALL BE SUBMITTED TO DOT FOR REVIEW PRIOR TO RECORDING FOR EACH MONUMENT.**

Existing Property					
Point #	Northing	Easting	Description	Station	Offset
1016	474623.48	529659.68	ALCAP_3.25"_DIGMON_7712-S_ROW-L3-EM3-TRA-1-USS1900	N/A	N/A
1022	474640.74	529744.37	PLASCAP_JWBEAN	1+04.54	93.27L
1023	474645.17	529772.56	PLASCAP_JWBEAN	1+29.76	79.93L
1024	474567.72	529881.40	PLASCAP_LS-5713\W-Tack	N/A	N/A

DOUGLAS CULVERT P-2 ALIGNMENT				
SEGMENT	START STATION	NORTHING	EASTING	END STATION
L1	0+10.56	480647.61	522770.83	0+39.05
L2	0+39.05	480662.18	522795.31	0+46.72
L3	0+46.72	480665.72	522802.12	0+51.63
L4	0+51.63	480668.06	522806.43	0+57.31
L5	0+57.31	480670.81	522811.41	0+58.37
L6	0+58.37	480671.31	522812.34	1+60.55
L7	1+60.55	480719.21	522902.60	1+69.72
L8	1+69.72	480724.05	522910.39	2+12.38

DOUGLAS CULVERT P-4 ALIGNMENT				
SEGMENT	START STATION	NORTHING	EASTING	END STATION
L9	0+10.53	474509.90	529731.98	0+37.22
L10	0+37.22	474532.93	529745.46	0+51.34
L11	0+51.34	474532.49	529759.58	0+57.67
L12	0+57.67	474537.98	529762.71	0+61.22
L13	0+61.22	474540.11	529765.56	1+41.47
L14	1+41.47	474568.18	529829.82	1+52.47
L15	1+52.47	474594.93	529838.50	1+74.96
L16	1+74.96	474614.97	529848.73	1+83.70
L17	1+83.70	474622.65	529852.90	2+07.05

MONUMENT NOTES:

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

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 SOUTHCOAST REGION
 6860 GLACIER HIGHWAY
 JUNEAU, AK 99811-2506
 (907)465-1763

SEA SR REGIONWIDE
 NON-NHS CULVERT
 REPAIR/REPLACE
 SURVEY CONTROL

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	68659/0003(190)	2017	A3	15

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MICELLANEOUS CENTERLINE		
STATION EQUATION		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING EASEMENT LINE		
PROPOSED EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE		
MEANDER LINE		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
FUEL LINE		
GAS LINE		
WATER LINE		
METER, VALVE, FIRE HYDRANT		
EXISTING STORM DRAIN (FLOW DIRECTION →)		
PROPOSED STORM DRAIN		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		
RIPRAP		
SPECIAL DITCH CENTERLINE		
HIGH TIDE LINE		

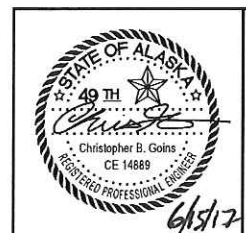
	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		
RIGID METAL CONDUIT		

- H = HOUSE
- G = GARAGE
- M = MERCHANT/STORE
- B = BARN
- S = SHED
- P = PRIVY
- SS = SERVICE STATION
- W = WAREHOUSE

- ABBREVIATIONS:
- DW = DRIVEWAY
 - SW = SIDEWALK
 - STA = STATION
 - D.I.P. = DUCTILE IRON PIPE
 - PVC = POLYVINYL CHLORIDE
 - CDF = CONTROLLED DENSITY FILL (CEMENTITIOUS MATERIAL WITH 1200 PSI OR LESS)
 - MTE = MATCH TO EXISTING
 - HMA = HOT MIX ASPHALT
 - OFF = OFFSET
 - HWY = HIGHWAY
 - WQS = WATER QUALITY STANDARDS
 - TBOC = TOP BACK OF CURB
 - ELEV = ELEVATION
 - SRTS = SAFE ROUTES TO SCHOOL
 - STD DWG = AK DOT&PF STANDARD DRAWING
 - AK DOT&PF = ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

SEA SR REGIONWIDE NON_NHS
CULVERT REPAIR REPLACE

LEGEND / SYMBOLS


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	1/2/18	Riprap, Class I Quantity	ALASKA	68659/0003(190)	2017	C1	15
2	1/12/18	Invasive Species C.R&D Quantity					

FILE C:\SEA\68659\PlanSet\SHEETS\68659 C1 QUANTITIES & ESTIMATE Addendum.dwg
 DATE 1/2/2018 15:19 LAYOUT C1
 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT

ESTIMATE OF QUANTITIES				Actual
ITEM NO	ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY
201(3B)	Clearing and Grubbing	Lump Sum	All Req'd	
201(7)	Invasive Species Control, Removal, and Disposal	Square Yard	160	173 S.Y.
202(1)	Removal Of Structures And Obstructions	Lump Sum	All Req'd	All Req'd
203(3)	Unclassified Excavation	Cubic Yard	20	20 C.Y.
203(6)	Borrow, Select Material, Type C	Ton	260	256.64 Tons
603(22-36)	36 Inch Pipe Liner	Linear Foot	192	311.8 L.F.
603(22-48)	48 Inch Pipe Liner	Linear Foot	115	0 L.F.
603(22-54)	54 Inch Pipe Liner	Linear Foot	154	155.5 L.F.
604(1)	Storm Sewer Manhole	Each	1	1 Each
610(1)	Ditch Lining	Cubic Yard	15	15.13 C.Y.
611(2-1)	Riprap, Class I	Ton	90	267.32 Tons
611(2-2)	Riprap, Class II	Ton	30	11.3 Tons
640(1)	Mobilization And Demobilization	Lump Sum	All Req'd	All Req'd
641(1)	Erosion, Sediment and Pollution Control Administration	Lump Sum	All Req'd	All Req'd
641(3)	Temporary Erosion, Sediment and Pollution Control	Lump Sum	All Req'd	All Req'd
641(5)	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	All Req'd	None Req'd
641(6)	Withholding	Contingent Sum	All Req'd	None Req'd
642(1)	Construction Surveying	Lump Sum	All Req'd	All Req'd
643(2)	Traffic Maintenance	Lump Sum	All Req'd	All Req'd
643(15)	Flagging	Contingent Sum	All Req'd	None Req'd
643(23)	Traffic Price Adjustment	Contingent Sum	All Req'd	None Req'd
643(25)	Traffic Control	Contingent Sum	All Req'd	All Req'd

BASIS OF ESTIMATE		
ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTORS
201(3B)	CLEARING AND GRUBBING	0.5 ACRES, Includes trees at P-2
202(1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	Baffles, Table & Tub at P-1 Site, Riser & Pipe at P-4 Site and plastic liner in P-3
203(5)	BORROW	1.70 TONS/CY
611(2)	RIPRAP	1.42 TONS/CY

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:



1/12/18

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811
 (907) 465-1763

SEA SR REGIONWIDE
 NON-NHS CULVERT
 REPAIR/REPLACE

**ESTIMATE OF QUANTITIES
 AND BASIS OF ESTIMATE**

FILE c:\SEA\68659\Plnset\SHEETS\68659 D1 SUMMARY.dwg DATE 5/10/2017 13:58 LAYOUT D1 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW. JT

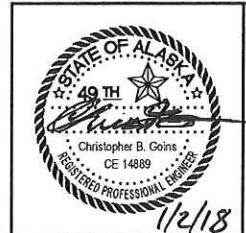
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	1/2/18	Proposed Length	ALASKA	Z686590000/0003(190)	2017	D1	15

603 CULVERT SUMMARY												Actual
PIPE	EXTG. INLET		EXTG. OUTLET		EXISTING LENGTH (FT)	EXISTING SIZE (IN)	APPROX GRADE	PROPOSED LENGTH	BAFFLES	WATERS OF U.S.	FISH PASSAGE	LENGTH(FT)
	STATION	INVERT	STATION	INVERT								
P-1	0+27	27.52	1+79	21.42	153	54X64	0.040	153	Yes	Yes	Yes	155.5
P-2	0+58	57.27	1+61	44.98	103	36" 48"	0.120	115	No	Yes	No	115.1
P-3a	0+67	61.21	1+24	57.37	57	36	0.067	57	No	Yes	No	58.5
S-3	1+24					48" Manhole			No	Yes	No	
P-3b	1+26	56.13	1+45	52.45	20	36	0.194	20	No	Yes	No	22.5
P-4a	0+62	51.15	1+42	49.70	81	36	0.018	81	No	Yes	No	82.2
S-4	1+42					24" CMP			No	Yes	No	
P-4b	1+42	49.70	1+69	32.71	33	36	0.619	35	No	Yes	No	33.5

NOTES:

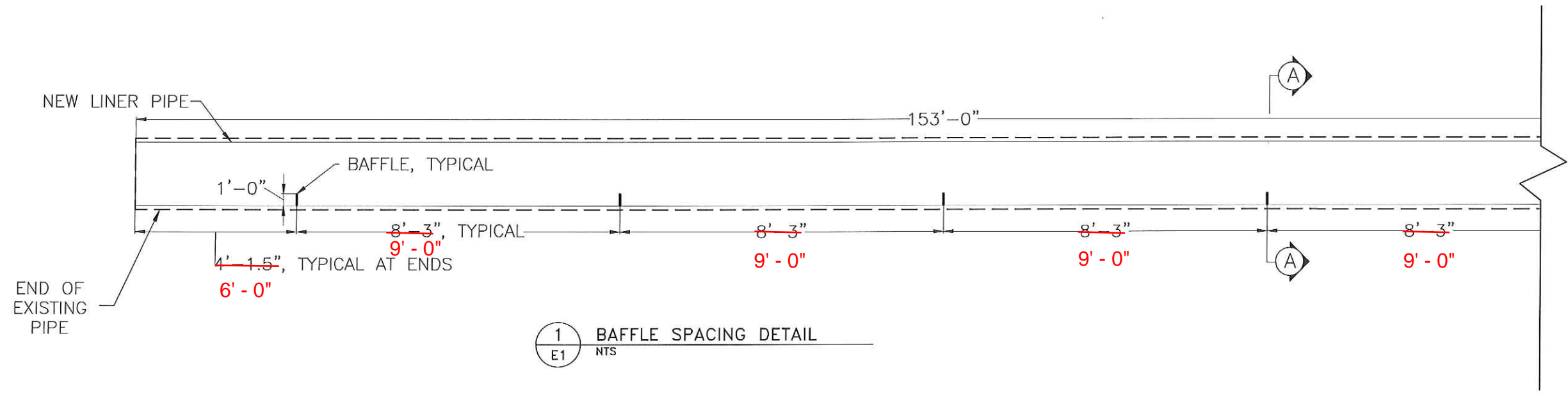
1. P-1 HAS EXISTING BAFFLES AND CHAINS THAT THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF.
2. NEW LINER AT P-1 SHALL HAVE FACTORY INSTALLED BAFFLES. SEE BAFFLE DETAIL ON SHEET E1.
3. STATIONING INDICATED IS ALONG ALIGNMENT OF INDIVIDUAL PIPES WITH STA 1+00 MARKING THE CENTERLINE OF THE ROAD.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

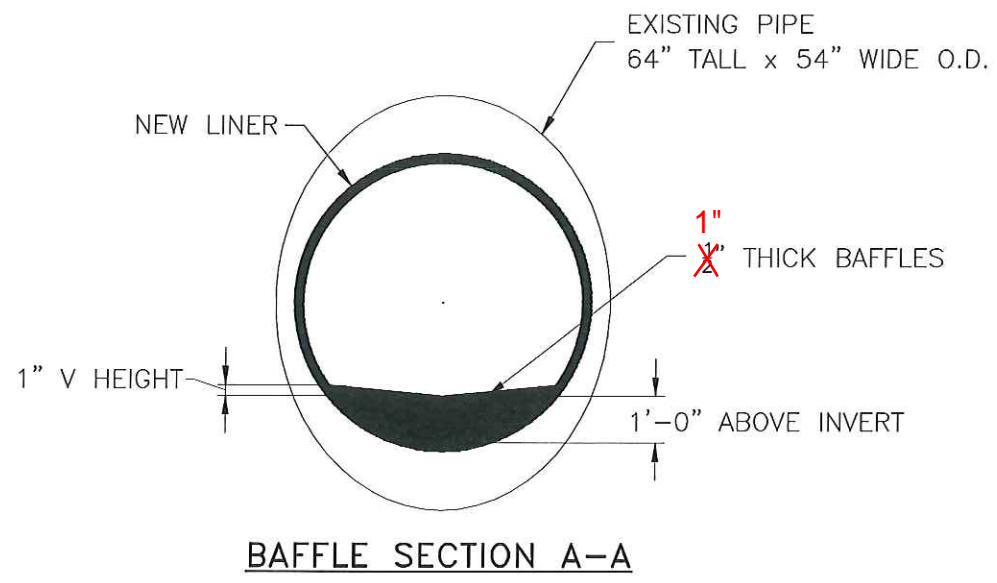


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763
SEA SR REGIONWIDE NON-NHS CULVERT REPAIR/REPLACE SUMMARY TABLES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z686590000/0003(190)	2017	E1	15



1 BAFFLE SPACING DETAIL
E1 NTS



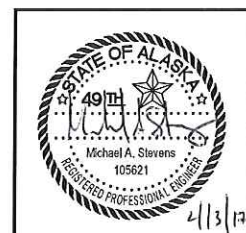
BAFFLE NOTES:

- 17 FACTORY INSTALLED BAFFLES SHALL BE CONSTRUCTED PER MANUFACTURE'S RECOMMENDATIONS AND SHALL BE WELDED IN PLACE AS INDICATED.
- ALL DIMENSIONS ON THIS SHEET ARE NOMINAL- BAFFLES SHALL BE WATER-TIGHT AND MANUFACTURED TO FIT PARTICULAR PIPE.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

FILE C:\SEA\68659\Plans\et\SHETS\68659 ET AQUATIC DETAILS.dwg DATE 3/24/2017 7:46 LAYOUT E1 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

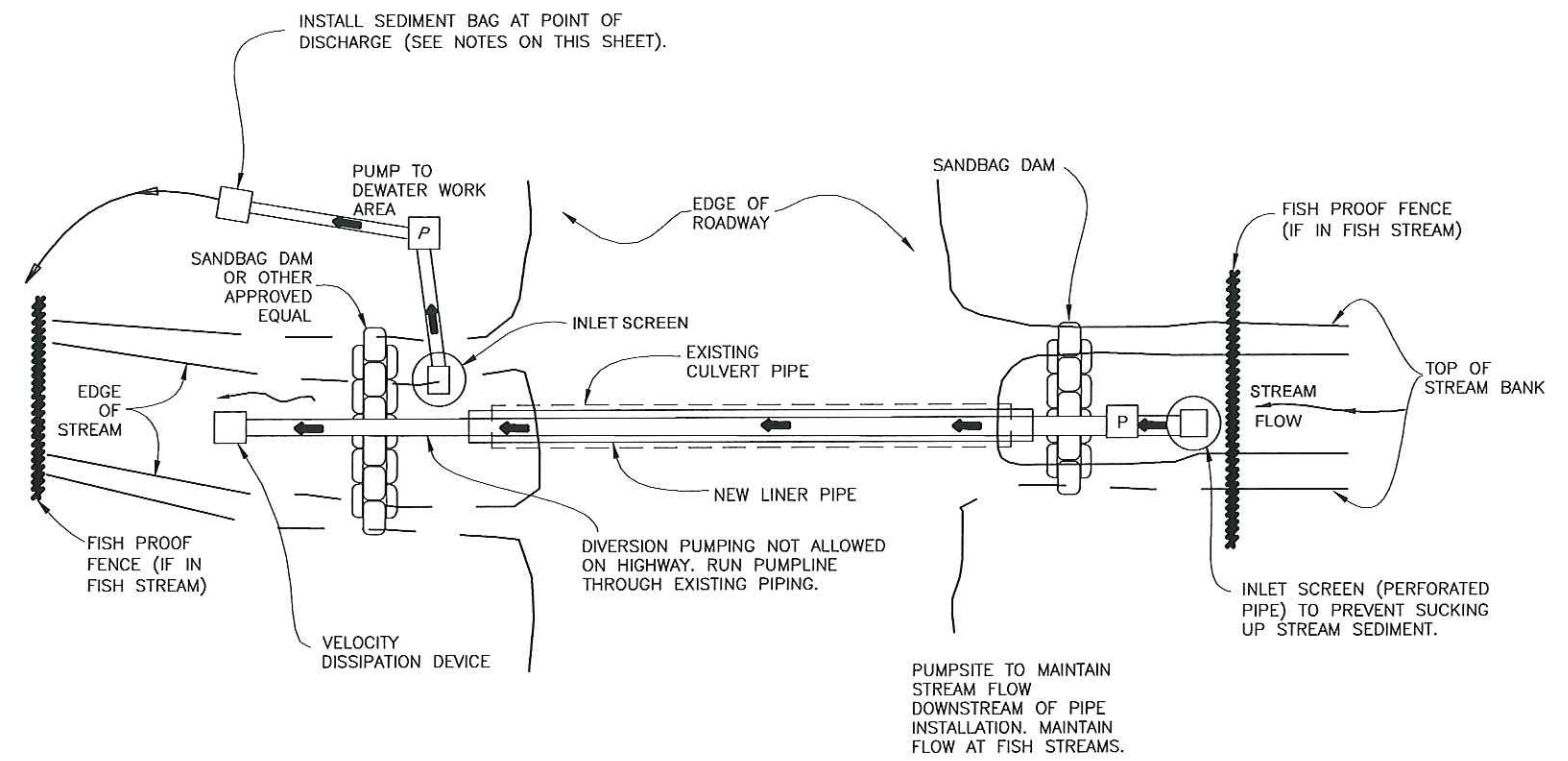


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SEA SR REGIONWIDE NON-NHS
CULVERT REPAIR/REPLACE

**AQUATIC LIFE PASSAGE
P-1 DETAILS**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT-L SHEETS
			ALASKA	Z686590000/0003(190)	2017	E2	15



1 RECOMMENDED STREAM DEWATERING DETAILS
E2 NTS

NOTES:

1. FISH SHALL BE REMOVED FROM WORK AREAS PRIOR TO BEGINNING WORK OPERATIONS IN A DESIGNATED FISH STREAM. ADF&G OR DOT&PF PERMITTED PERSONNEL UNDER ADF7G FISH RESOURCE PERMIT WILL ACCOMPLISH FISH TRAPPING AND FISH PROOF FENCING INSTALLATION AS SPECIFIED BY THE PERMIT.
2. WHEN IN-STREAM WORK AREAS REQUIRE DEWATERING, THE PUMP DISCHARGE SHALL BE PLACED SO THAT THERE IS A MINIMUM OF 50 FEET OF VEGETATED AREAS BETWEEN THE DISCHARGE POINT AND THE STREAM BANK SUCH THAT DEWATERING DISCHARGE COMPLIES WITH STATE WATER QUALITY STANDARDS AS DESCRIBED IN 18 AAC 70, TURBIDITY FOR FRESHWATER USES. PUMP DISCHARGE PLACEMENT MAY REQUIRE FREQUENT REPOSITIONING OF THE DISCHARGE LOCATION AND/OR ADDITIONAL DISCHARGE TREATMENT METHODS SHALL BE NECESSARY.
3. MULTIPLE PUMPS MAY BE NECESSARY TO DEWATER WORK AREAS AND/OR MAINTAIN STREAM BYPASS FLOW. THE CONTRACTOR SHALL PROVIDE ADEQUATE QUANTITIES AND SIZES OF PUMPS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

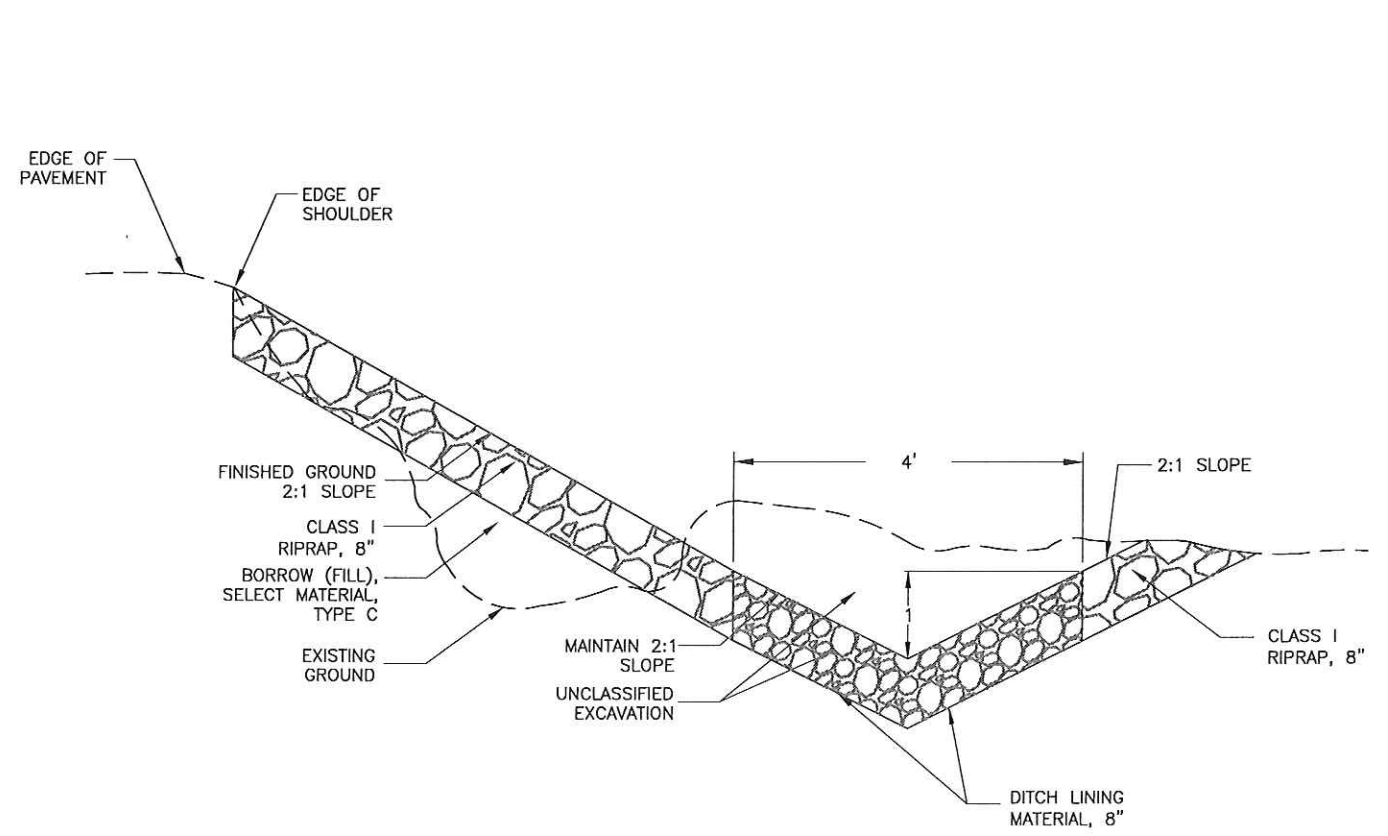
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

**SEA SR REGIONWIDE NON-NHS
CULVERT REPAIR/REPLACE
RECOMMENDED STREAM
DEWATERING DETAILS**

FILE C:\SEA\68659\Plinset\SHETS\68659 E2-E5 MISC DETAILS.dwg DATE 5/10/2017 8:00 LAYOUT E2 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z686590000/0003(190)	2017	E3	15

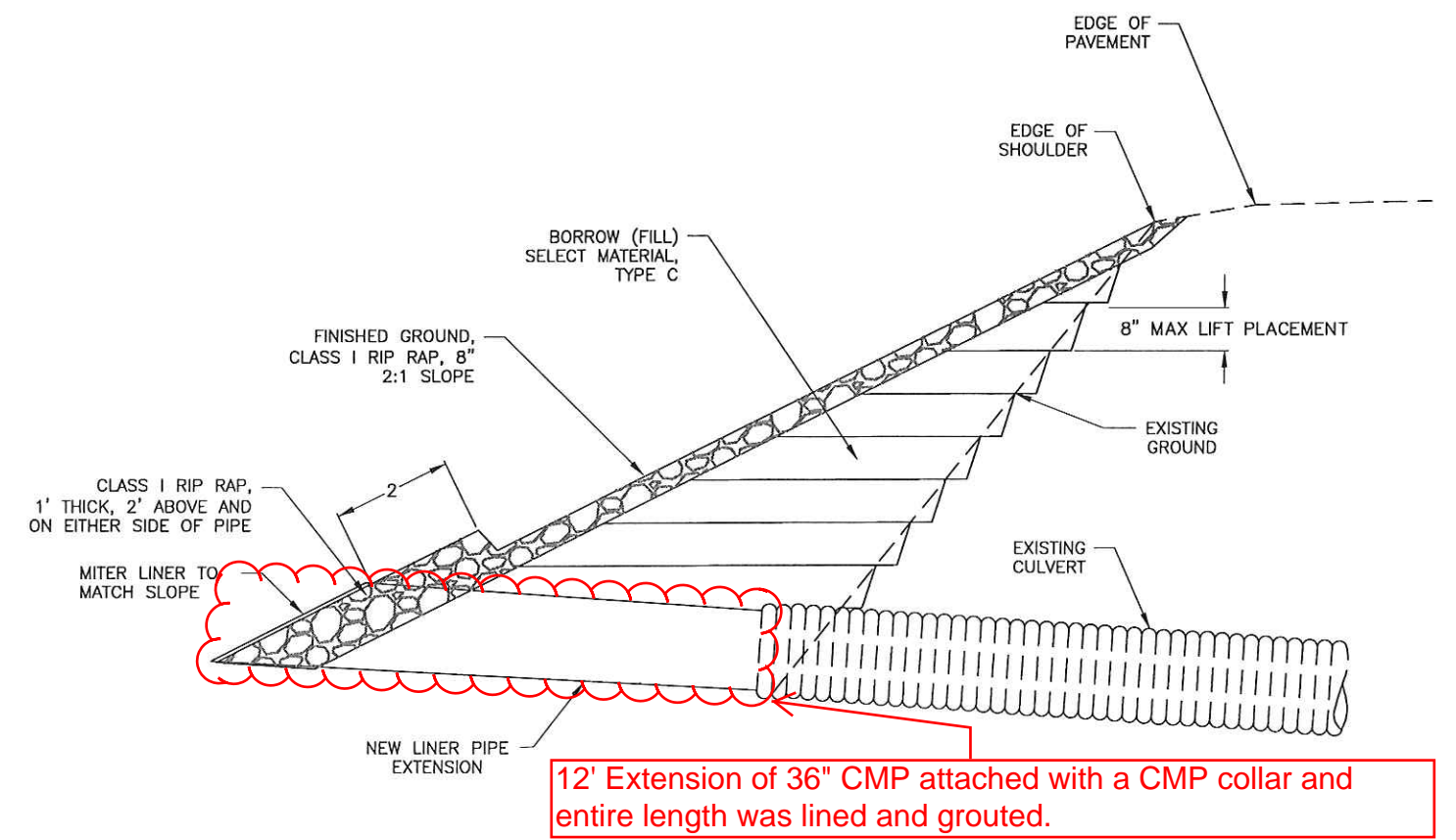
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 DATE 5/10/2017 13:55 LAYOUT E3 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT



1 P-2 DITCH DETAIL
E3 NTS

CONSTRUCTION NOTES:
 1. SEE SHEET F2 FOR COORDINATES OF BEGINNING AND END OF CENTERLINE OF DITCH.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PROJECT ENGINEER:



2 P-2 EXTENSION & EMBANKMENT RESTORATION DETAIL
E3 NTS

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

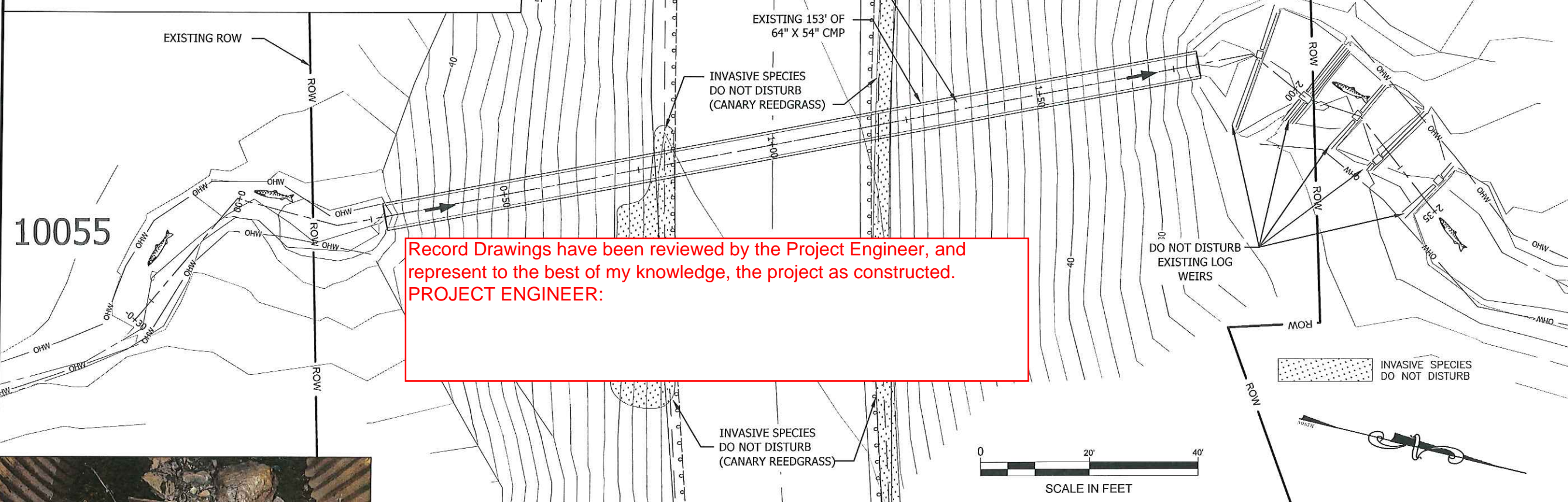
12/22/17

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 (907) 465-1763

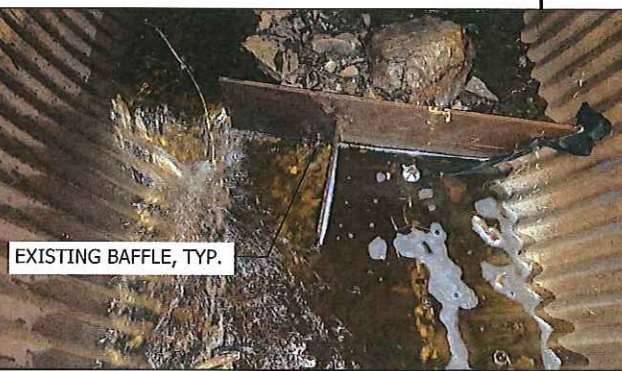
SEA SR REGIONWIDE NON-NHS
 CULVERT REPAIR/REPLACE
 P-2 DITCH, EXTENSION
 AND EMBANKMENT
 RESTORATION DETAILS

FILE Q:\SEA\68659\Plans\Sheets\68659 F1-F4 PLAN & PROFILE.dwg DATE 3/24/2017 7:48 LAYOUT F1 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT

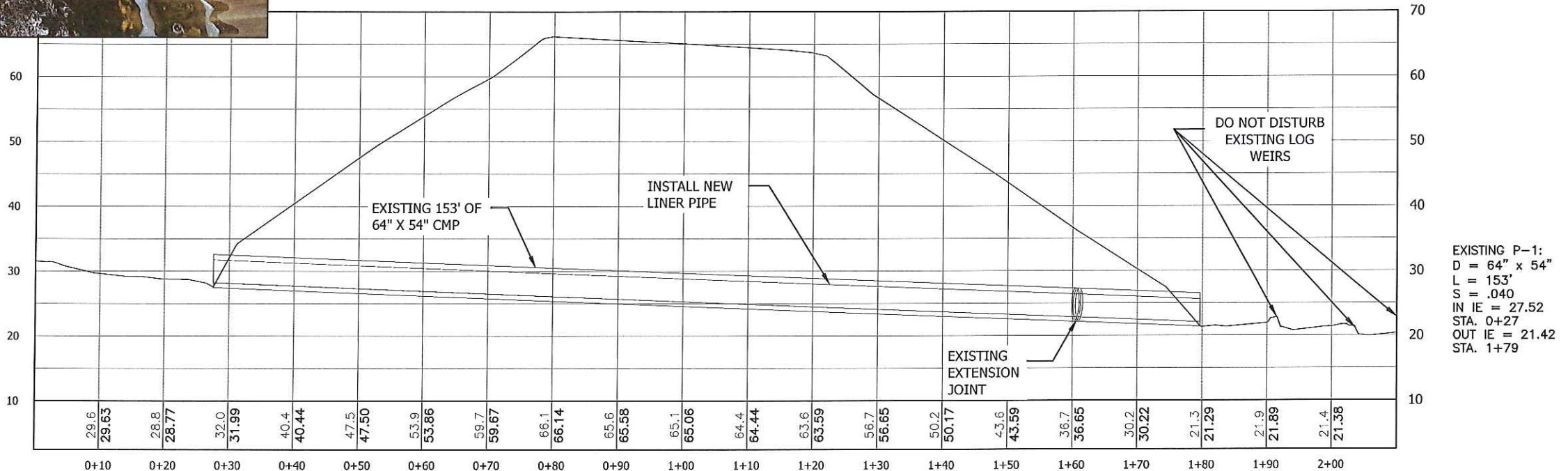
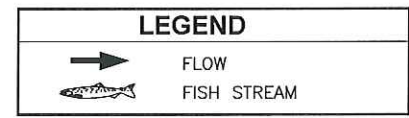
P-1 @ NINE MILE CREEK



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:



- NOTES:
1. REMOVE EXISTING BAFFLES AND CHAINS AND PROPERLY DISPOSED OF THEM.
 2. NOT DISTURB EXISTING LOG WEIRS DOWNSTREAM OF CULVERT.
 3. SEE SHEET R1 FOR ACCESS AND EASEMENTS.

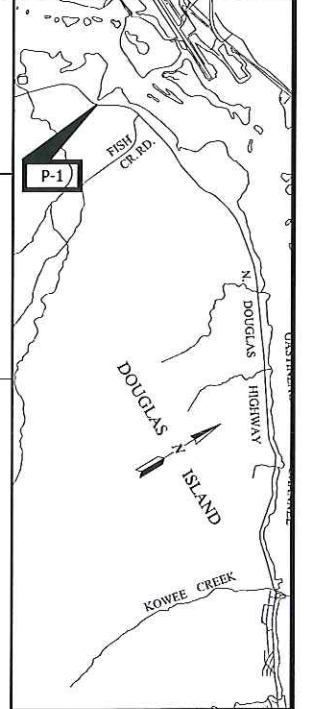


PROFILE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

SHEET NO.	TOTAL SHEETS
F1	1815
STATE	YEAR
ALASKA	2017
PROJECT DESIGNATION	
Z686590000/0003(190)	

NO.	DATE	REVISION



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8860 GLACIER HIGHWAY, JUNEAU, AK 99811
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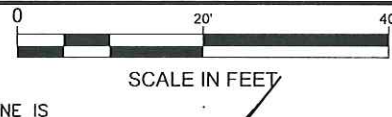
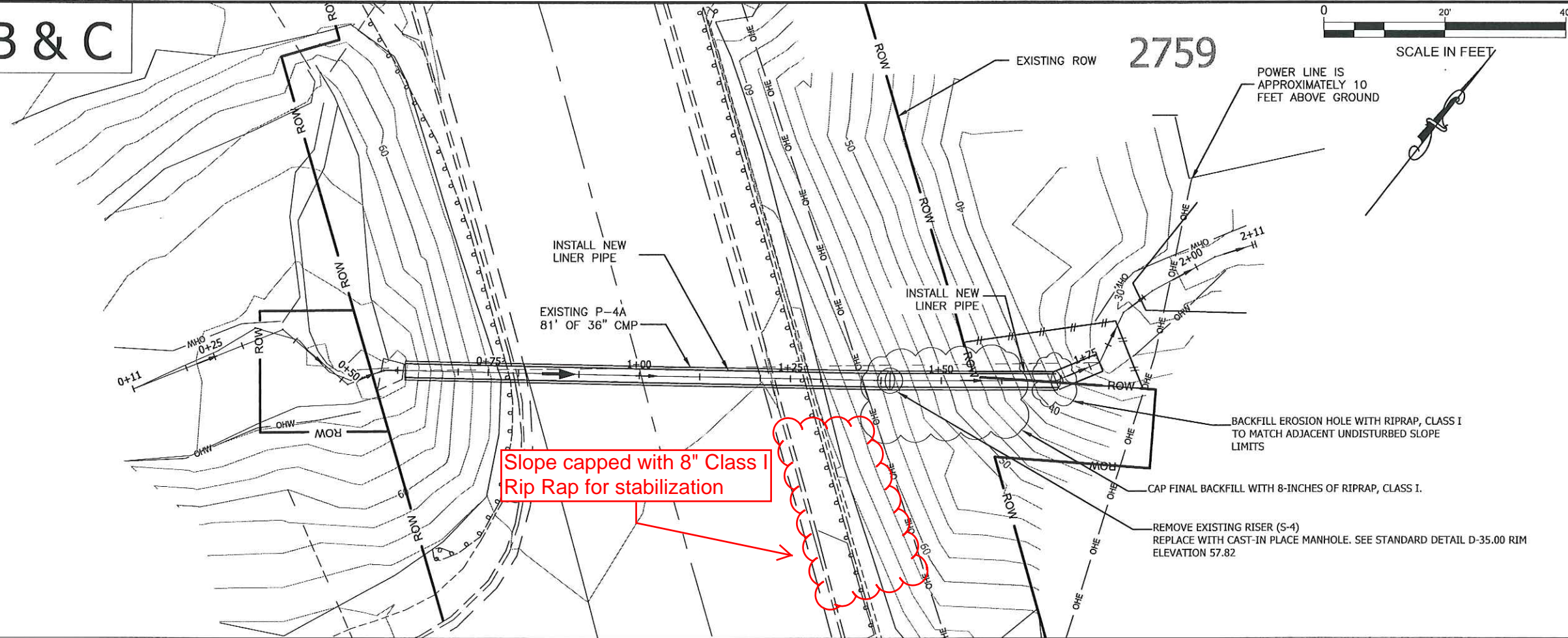
SEA SR REGIONWIDE NON-NHS CULVERT REPAIR/REPLACE

PLAN & PROFILE FOR P-1

4/3/17

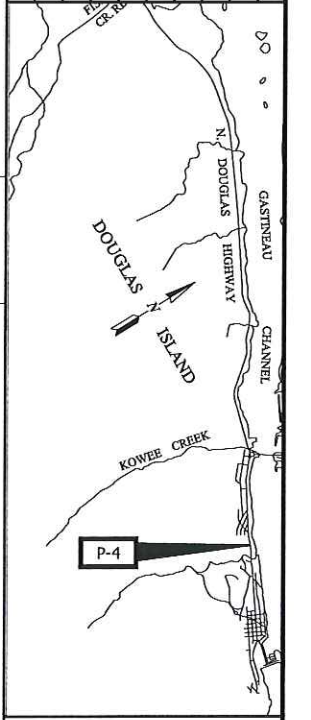
P-4A,B & C

FILE: \\SEA\66659\Plans\Sheet\SHEETS\66659 F1-F4 PLAN & PROFILE.dwg
 DATE: 12/22/2017 15:50 LAYOUT: F4
 DESIGNED: R. WARNER CHECKED: C. GOINS DRAFTED: RW, JT



SHEET NO.	TOTAL SHEETS
F4	15
STATE	YEAR
ALASKA	2017
PROJECT DESIGNATION	
Z686590000/0003(190)	

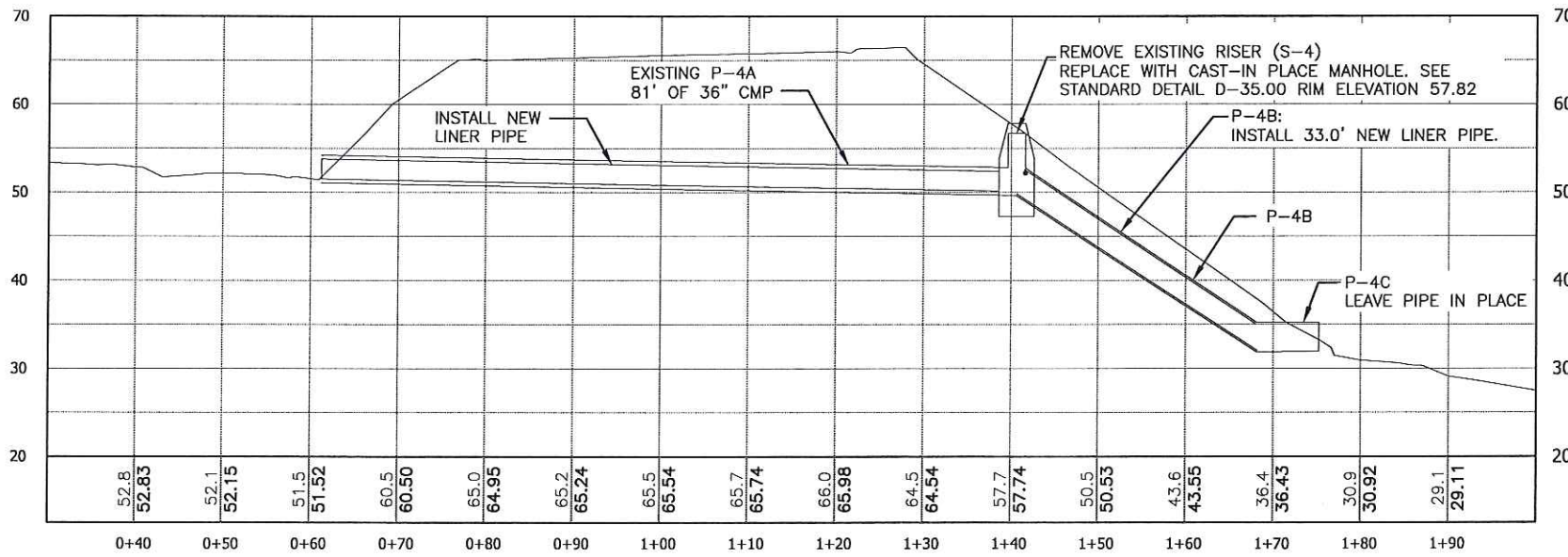
NO.	DATE	REVISION
1	1/2/18	Proposed liner length



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

EXISTING PIPE P-4A:
 D = 36"
 L = 81'
 S = 0.018
 IN IE = 51.15
 STA 0+61
 OUT IE = 49.70
 STA 1+42

PROPOSED LINER PIPE FOR P-4A:
 L = 81'
 S = 0.018
 IN IE = 51.15
 STA 0+61
 OUT IE = 49.70
 STA 1+41.5



PROPOSED LINER PIPE P-4B:
 L = 33.0'
 S = 0.619
 IN IE = 49.70
 STA 1+41.5
 OUT IE = 32.71
 STA 1+69

INFORMATION ON THIS PAGE IS ASSUMED, BASED ON AVAILABLE DATA

PROFILE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA
 Christopher B. Goins
 CE 14889
 REGISTERED PROFESSIONAL ENGINEER
 1/2/18
 STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 6800 CLADER HIGHWAY, SAREK, AK 99811
 (907) 465-1763
 SEA SR REGIONWIDE NON-NHS CULVERT REPAIR/REPLACE
PLAN & PROFILE FOR P-4

FILE C:\SEA\68659\Plinset\SHETS\68659 P1 EROSION & SEDIMENT DETAILS.dwg DATE 3/31/2017 10:58 LAYOUT P1 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW. JT

NO.	DATE	REVISION	STATE	PROJECT IDENTIFICATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	68659/0003(190)	2017	P1	15

GENERAL SITE INFORMATION:

1. SITE FUNCTION: DRAINAGE.
2. AVERAGE ANNUAL PRECIPITATION = 98"
3. 2-YEAR 24-HOUR PRECIPITATION = 3.49"
4. PROJECT AREAS ARE LISTED BELOW (MATERIAL SITES NOT LISTED):
PROJECT AREA (ACRE): 0.80
DISTURBED AREA (ACRE): <0.22
IMPERVIOUS AREA (ACRE): 0.10
RUNOFF COEFFICIENT: 0.75 (residential)
5. SPRING THAW DATE: MAY 19
6. FALL FREEZE DATE: OCTOBER 13

ENVIRONMENTAL INFORMATION:

1. RECEIVING WATERS: MENDENHALL WETLANDS STATE GAME REFUGE (P-1) & GASTINEAU CHANNEL (P-2, P-3 & P-4)
2. IMPAIRED WATER BODIES: NONE
3. TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS: NONE.
4. THREATENED AND ENDANGERED SPECIES: NONE.
5. HISTORICAL & CULTURAL RESOURCE PRESENCE: NONE.
6. FISH AND WILDLIFE ESSENTIAL HABITAT: YES (P-1)
7. WETLANDS: NONE.
8. THERE ARE NOT ANY CONTAMINATED SITES WITHIN 1500 FEET OF ANY WORK SITES INVOLVED WITH THIS PROJECT.

ANTICIPATED CONSTRUCTION SEQUENCE:

THIS ESCP ASSUMES THE FOLLOWING CONSTRUCTION SEQUENCE FOR EACH PIPE BEFORE MOVING TO THE NEXT:

1. INSTALL PERIMETER CONTROLS AND BMP'S AND STAKE PERMIT BOUNDARIES AND RIGHT-OF-WAY BOUNDARIES.
2. INSTALL DIVERSION EQUIPMENT.
3. INSTALL LINER PIPE, GROUT AND PLACE RIPRAP.
4. RESTORE ORIGINAL STREAM FLOW AND REMOVE EQUIPMENT

ESCP NOTES:

1. THIS ESCP IS INTENDED TO GUIDE CONTRACTORS DURING THE BIDDING PROCESS AND ASSIST IN THE PREPARATION OF THE CONTRACTOR'S WATER QUALITY CONTROL PLAN (WQCP) THAT MUST BE APPROVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE RISK ASSESSMENT, PLANNING, PREPARATION, AND IMPLEMENTATION OF THE WQCP.
2. REFER TO APPENDIX B OF THE SPECIAL PROVISIONS FOR THE ENVIRONMENTAL COMMITMENTS AND PERMITS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

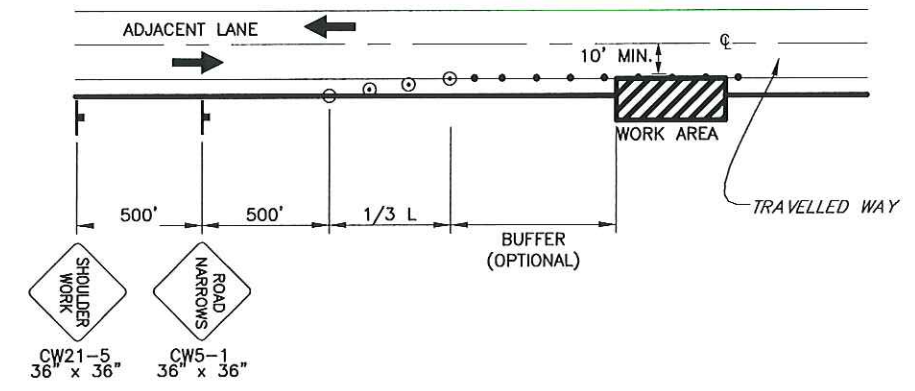
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763

SEA SR REGIONWIDE NON-NHS
CULVERT REPAIR/REPLACE

**EROSION & SEDIMENT
CONTROL DETAILS**

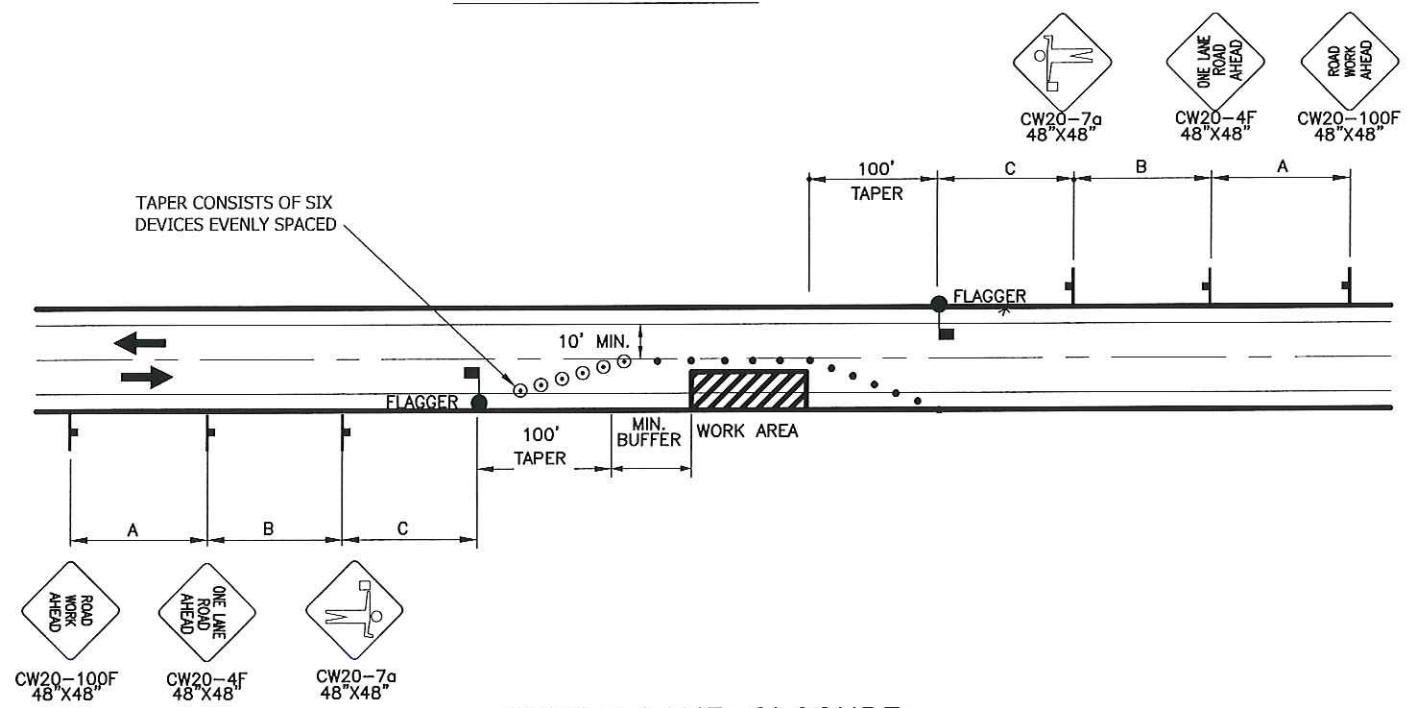
FILE C:\SEA\68659\PlanSet\SHEET\68659 T1 TRAFFIC CONTROL.dwg DATE 5/10/2017 8:14 LAYOUT T1 DESIGNED R. WARNER CHECKED C. GOINS DRAFTED RW, JT

NO.	DATE	REVISION	STATE	PROJECT DESIGN-101	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	68659/0003(190)	2016	T1	15



SPEED (MPH)	TRAFFIC CONTROL PLAN SET UP TABLE						SPACING (ft)		BUFFER (ft)	
	LANE WIDTH (ft)			LANE WIDTH (ft)			Straight	Curve	Buffer	Buffer (ATSA)
	10	11	12	10	11	12				
40	Minimum Taper Length (ft)			Minimum Number of Devices			40	80	305	170
45	270	295	320	8	9	9	45	90	360	220

SHOULDER WORK



LEGEND

- SIGN
- ----- CONE
- ⊙ ----- DRUM

SINGLE LANE CLOSURE
TWO LANE ROAD

SIGN SPACING (FT)			
SITE	A	B	C
P1	500	500	500
P2	500	500	500
P3	100	350	350
P4	100	350	350

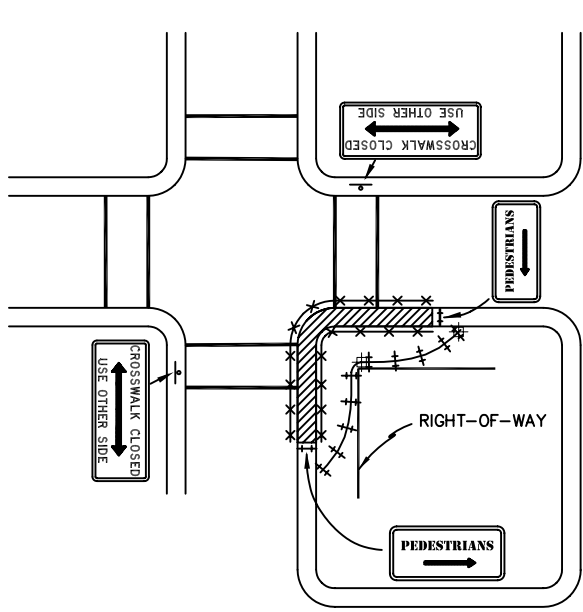
NOTES:

1. MINIMUM OF ONE LANE SHALL REMAIN OPEN AT ALL TIMES IN WORK AREAS. NO RESTRICTIONS SHALL TAKE PLACE WHEN NOT ACTIVELY WORKING.
2. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
3. THE CONTRACTOR SHALL ORGANIZE CONSTRUCTION OPERATIONS SO THE TOTAL OF ALL STOPPAGES EXPERIENCED BY A VEHICLE TRAVELING THROUGH THE PROJECT DOES NOT EXCEED FIVE MINUTES.
4. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
5. CHANNELIZATION DEVICES IF USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
6. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. ALL TCPs SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.

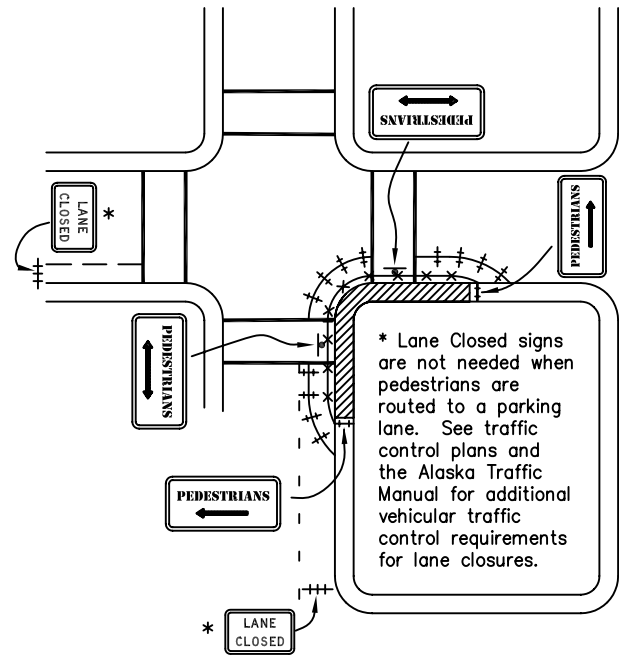
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

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6860 GLACIER HIGHWAY, JUNEAU, AK 99811
(907) 465-1763
SEA SR REGIONWIDE
NON-NHS CULVERT
REPAIR/REPLACE
TRAFFIC CONTROL

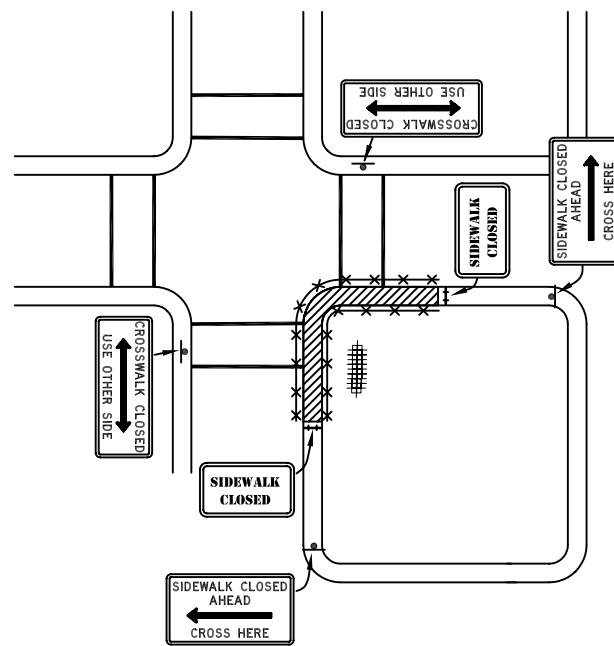
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



A. Detour Away From Road



B. Detour to Closed Parking or Travel Lane



C. Detour to Other Side

NOTES.

1. Provide pedestrian traffic control devices when sidewalks or pathways are closed to pedestrians and where required by the Plans or Specifications.
2. Avoid routing pedestrians across roads unnecessarily. Use detail C or F only when it is not practical to use detail A, B, D, or E.
3. Maintain a minimum pedestrian facility width of 5 feet or the width of the facility that existed before construction, whichever is less.
4. Where the posted speed limit exceeds 45 MPH, separate pedestrians from roadway edge of pavement or face of curb by at least 5'. Where that is not feasible, install portable concrete barrier between pedestrians and the road.
5. When pedestrian traffic control devices required by the current traffic control plan are not in place or are temporarily removed, provide a worker to direct pedestrians through the work area.
6. Cover pedestrian traffic signal displays controlling closed crosswalks.
7. This sheet focuses on traffic control devices for pedestrians. Look elsewhere for vehicular traffic control requirements.
8. When using details C and F, route pedestrians to the best crossing point near the work area.

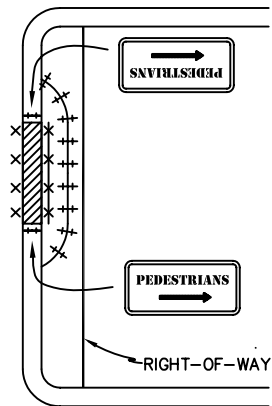
INTERSECTION SIDEWALK PATHWAY OR SHOULDER CLOSURE

A to C In Order of Preference

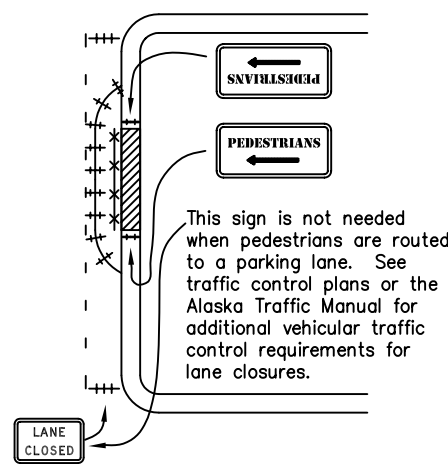
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

LEGEND:

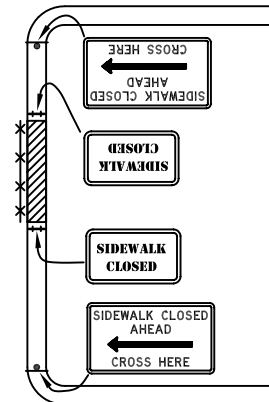
- ++ Type II Barricade or Tubular Marker
- +++ Type III Barricade
- x-x-x- Safety Fence
- Sign
- Work Area



D. Detour Away From Road



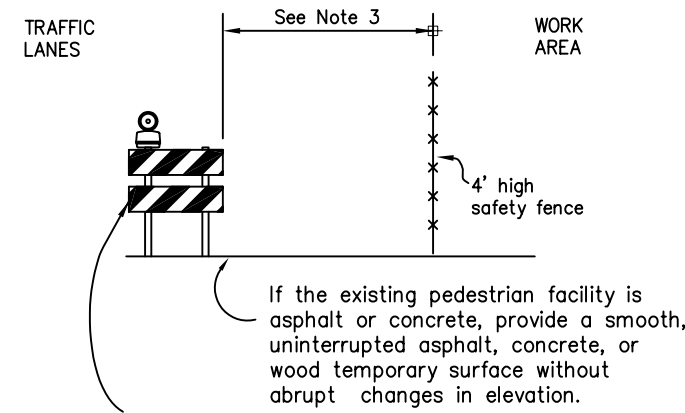
E. Detour to Closed Parking or Travel Lane



F. Detour to Other Side

MID-BLOCK SIDEWALK PATHWAY OR SHOULDER CLOSURE

D to F In Order of Preference



Type II barricades or tubular markers with flagger tape strung between them. A 4' high safety fence may be used instead of tape when greater control of pedestrian routing is desirable.

PEDESTRIAN DETOUR TYPICAL SECTION

REVISIONS		
Date	Description	By

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

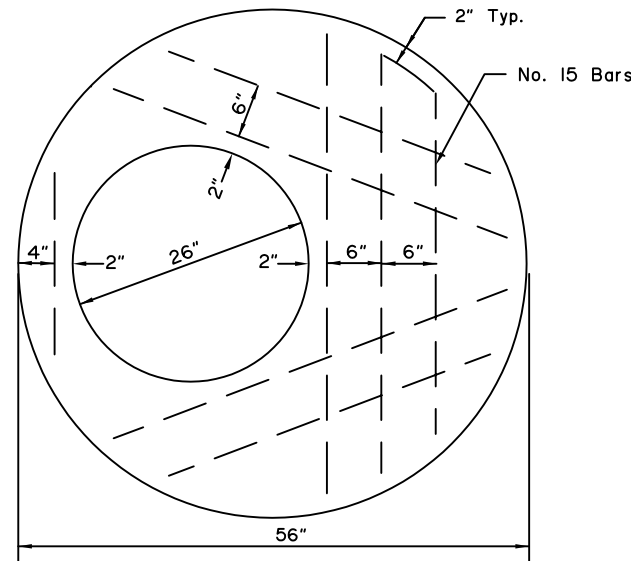
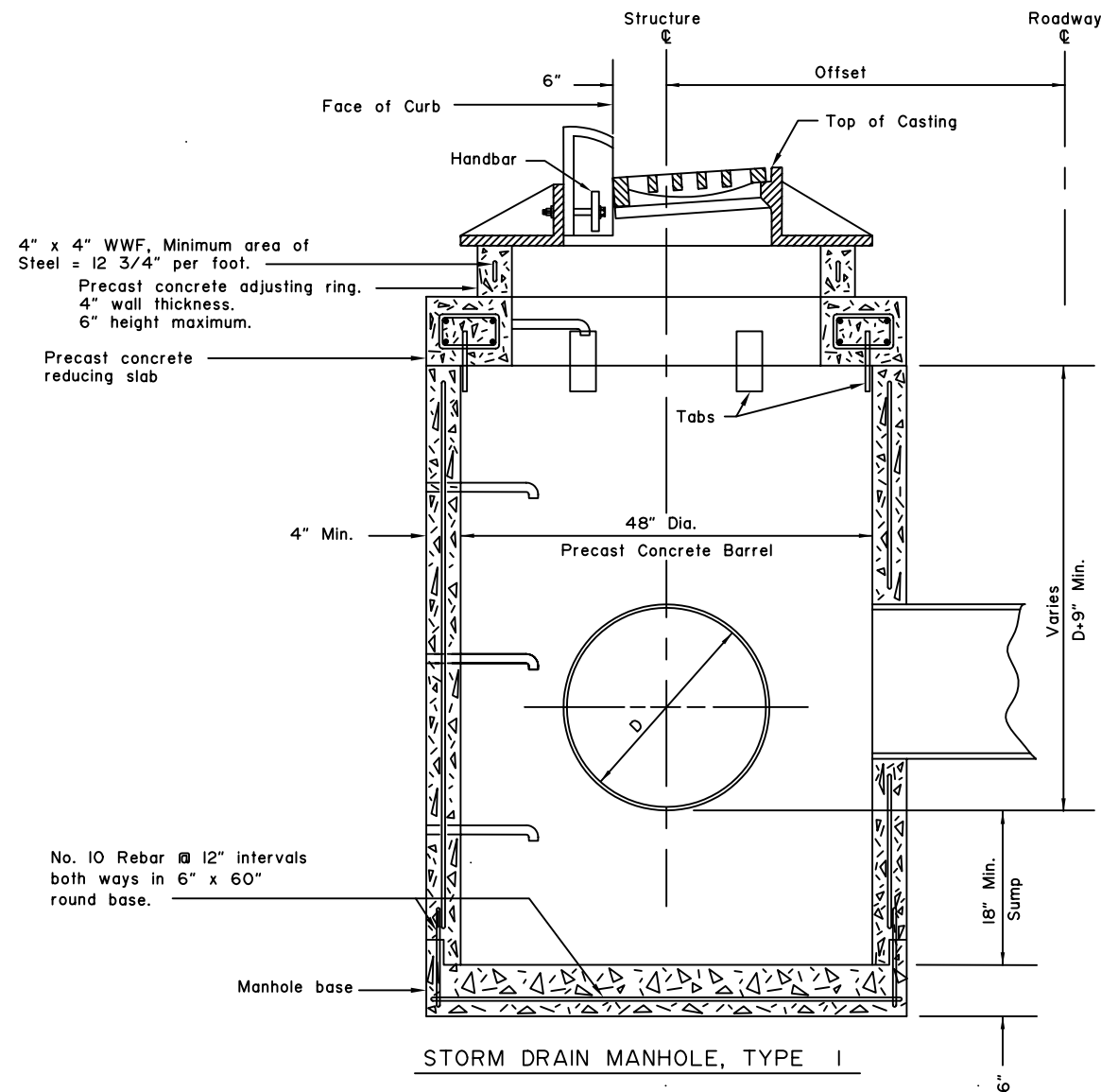
PEDESTRIAN TRAFFIC CONTROL

APPROVED

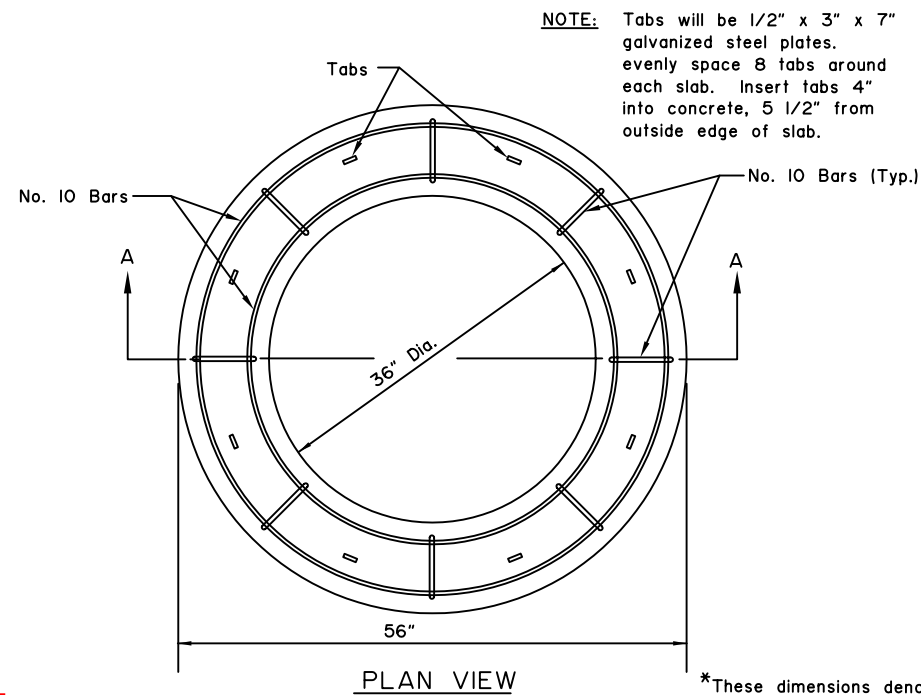
Date 5/15/01

GENERAL NOTES:

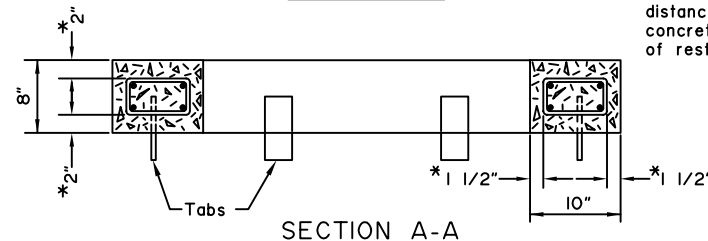
1. All drainage structures and appurtenances shall meet the requirements of ASTM C-478.
2. Minimum steel required for barrel as per ASTM-478 shall be imbedded in base so that the first barrel section is connected to the base by continuous steel.
3. Cast-In-Place structures may be used if approved by the Engineer.
4. All blockouts shall be formed.
5. All storm drain manholes and inlets shall have 18" minimum sumps. Manholes with petroleum separators shall have 24" minimum sumps.
6. Steps shall be placed 12" O.C. on the unobstructed side of the structure, 20" from top of casting and 18" maximum from manhole base.
7. On storm drain manhole, type I structures, primary pipes not to exceed 30" C.M.P. or 27" rigid concrete pipe with included angle between pipes no less than 135 degrees or primary pipes not to exceed 24" C.M.P. or 21" rigid concrete pipe with included angle no less than 135 degrees.
8. Offsets are measured from C of the road to C of the structure.
9. The precast concrete reducing slab with a 26" opening is to be used with the depressed inlet frame in the rolled curb areas.



PRECAST CONCRETE REDUCING SLAB
56" to 26" with offset hole.



NOTE: Tabs will be 1/2" x 3" x 7" galvanized steel plates, evenly space 8 tabs around each slab. Insert tabs 4" into concrete, 5 1/2" from outside edge of slab.



SECTION A-A
PRECAST CONCRETE REDUCING SLAB
56" to 36" with centered hole.

*These dimensions denote distance between edge of concrete and outside edge of resteel.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PROJECT ENGINEER:

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation
& Public Facilities

48" STORM
DRAIN MANHOLE



Date 3/15/99