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# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

### SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION PROJECT No. SFHWY00076/0003206



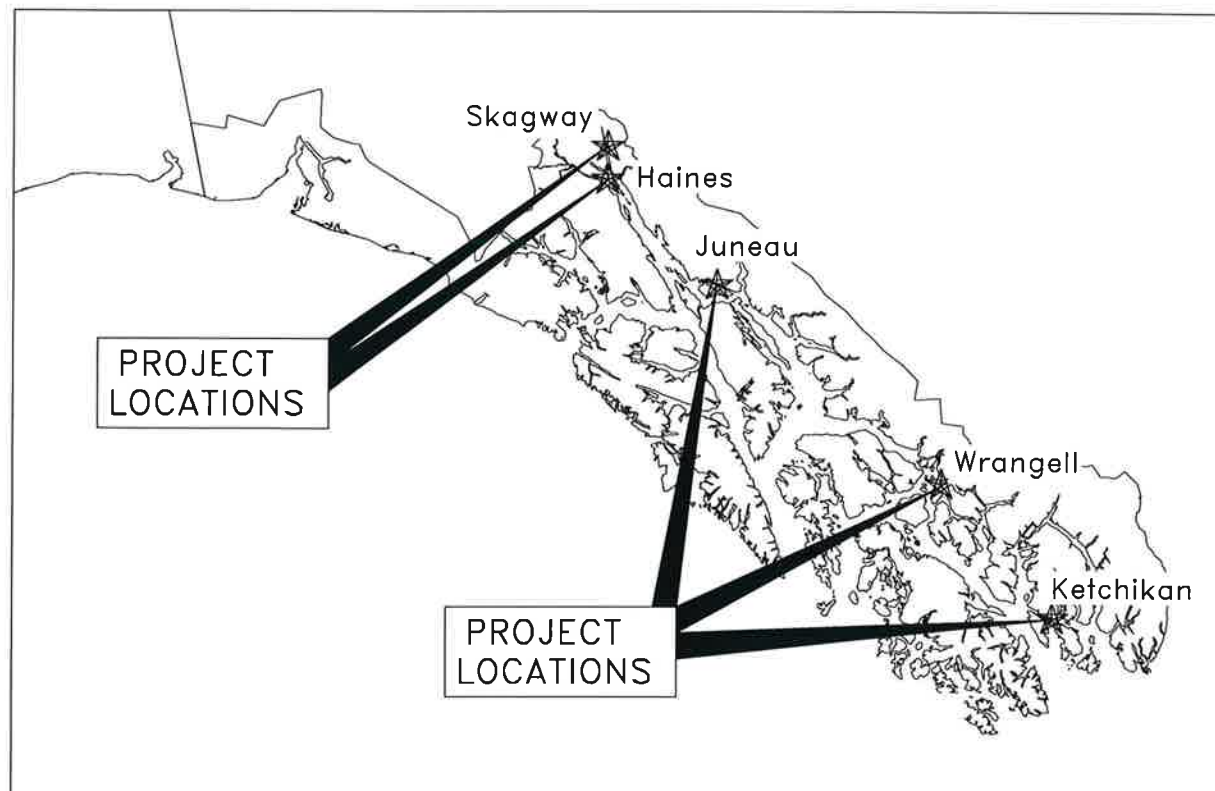
NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH\00076/0003206	2018	A1	3
						PLAN SET TOTAL	30
CDS ROUTE: NA				MILEPOINT: NA			

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

*Jessica Puskala*

October 9, 2018

CCS No.	LOCATION
R-1	HAINES HWY (HAINES)
R-2	KLONDIKE HWY (SKAGWAY)
R-3	N. TONGASS HWY (KETCHIKAN)
R-4	ZIMOVIA HWY (WRANGELL)
C-1	BACK LOOP RD (JUNEAU)
C-2	N. PT. HIGGINS RD (KETCHIKAN)
C-3	REVILLA RD (KETCHIKAN)
C-4	SPEAR RD (WRANGELL)



#### As-Builts

Contractor: Ever Electric  
 Project Engineer: Dillon Tomaro  
 Start Date: October 9, 2019  
 End Date: January 6, 2020

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

PE \_\_\_\_\_ Date \_\_\_\_\_

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2017 EDITION AND THE PROJECT SPECIAL PROVISIONS.

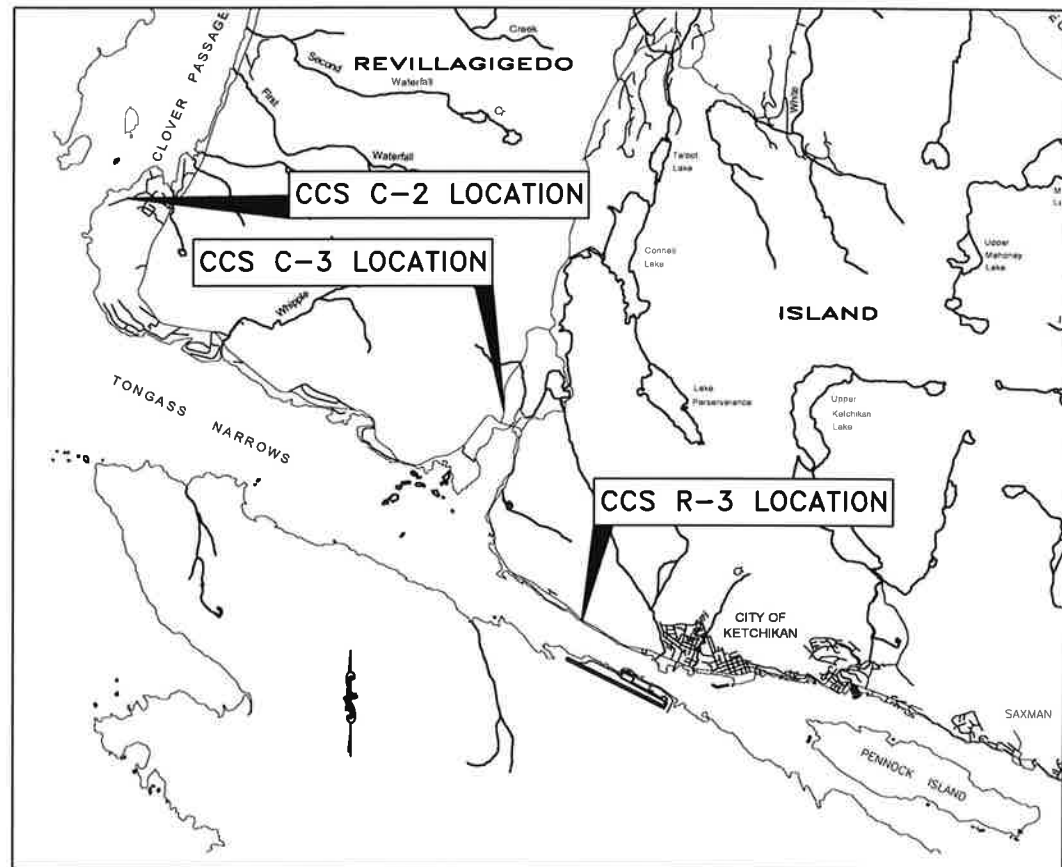
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
SOUTHCOAST REGION

APPROVED: *[Signature]* 7/12/18  
REGIONAL PRECONSTRUCTION ENGINEER DATE  
L. PAT CARROLL, P.E.

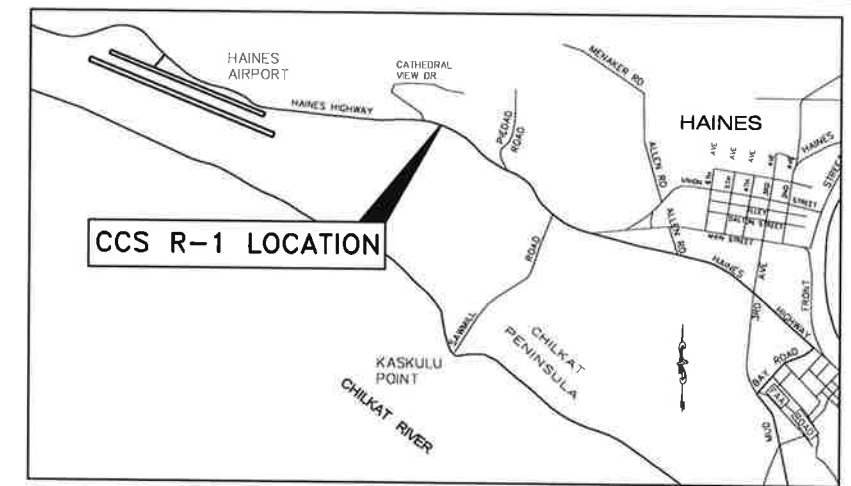
FOR CONCUR: *[Signature]* 12/1/2018  
DIRECTOR, SOUTHCOAST REGION DATE  
D. LANCE MEARIC, P.E.

FILE Q:\SEA\SFHWY00076\Project\SFHWY00076\_A2 Project Layout.dwg  
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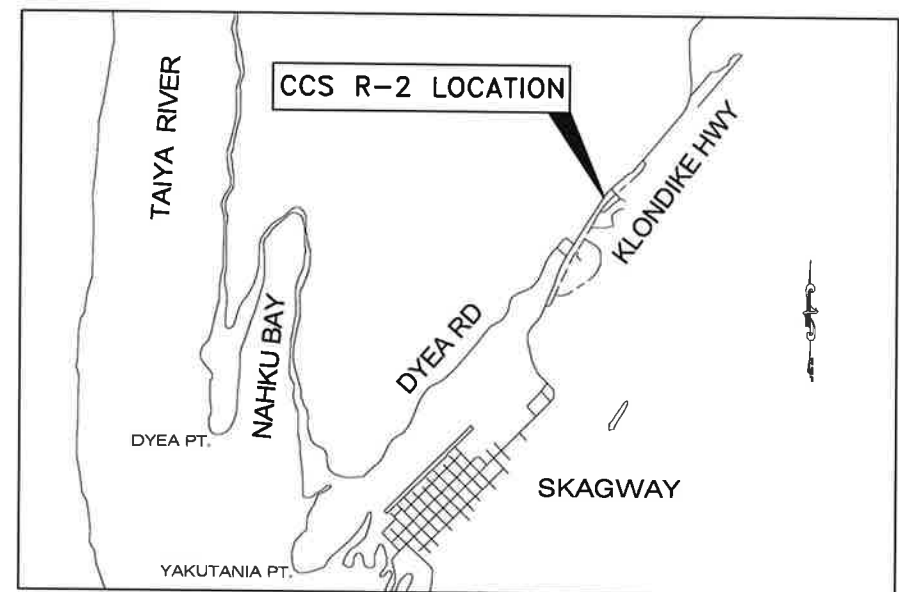
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			ALASKA	SFHWY00076/0003206	2018	A2	30



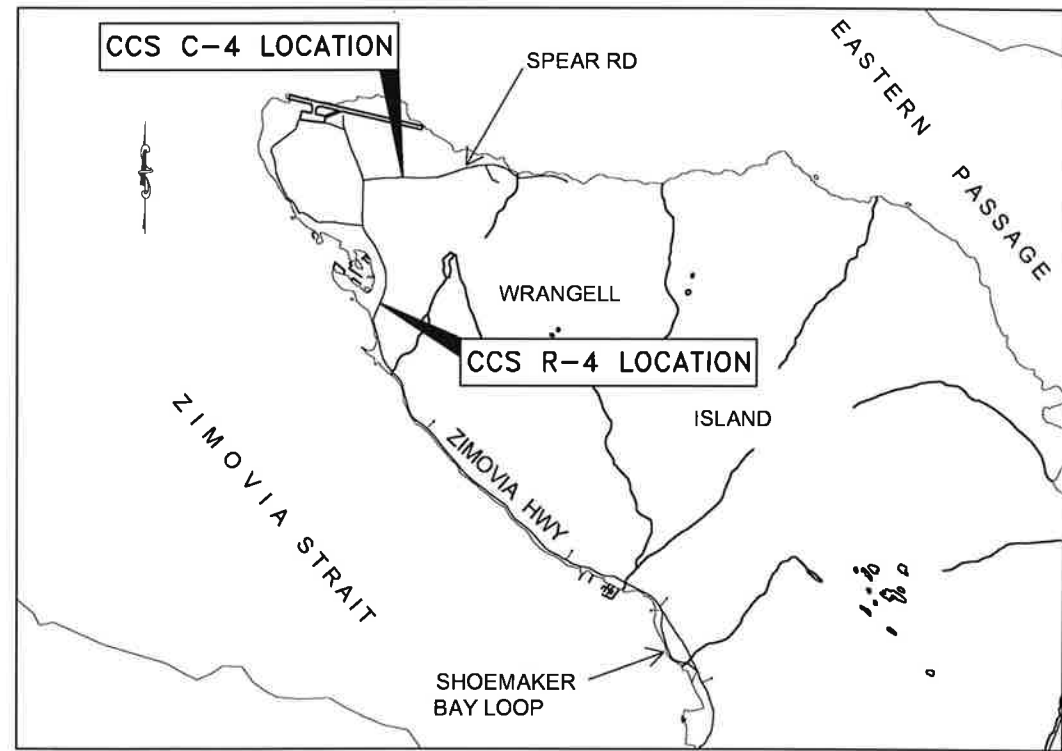
**KETCHIKAN VICINITY MAP**



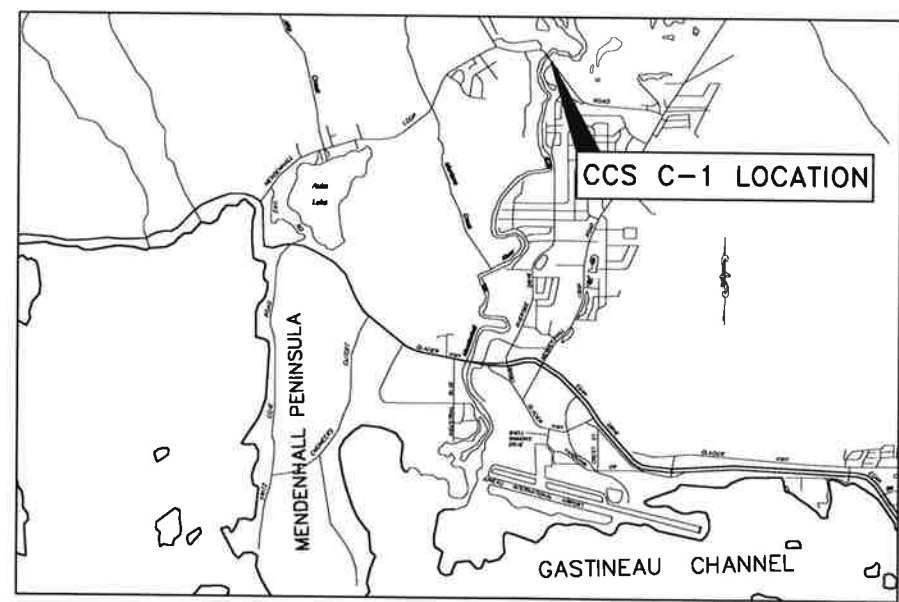
**HAINES VICINITY MAP**



**SKAGWAY VICINITY MAP**



**WRANGELL VICINITY MAP**



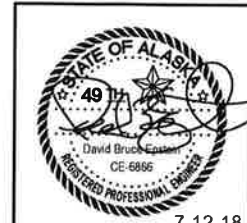
**JUNEAU VICINITY MAP**

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	PROJECT VICINITY MAPS
A3	LEGEND / SYMBOLS
B1	TYPE II LOAD CENTER AND CBA2 CONTROL CABINET DETAILS
B2	ATR2 CABINET TOP VIEW AND LOAD CENTER SUMMARY
C1	ESTIMATE OF QUANTITIES
C2	BASIS OF ESTIMATE/GENERAL NOTES
F1-F1A	HAINES HIGHWAY CCS R-1
F2, F2A, F2B	KLONDIKE HIGHWAY CCS R-2
F3-F3A	N. TONGASS HIGHWAY CCS R-3
F4-F4A	ZIMOVIA HIGHWAY CCS R-4
F5-F5A	BACK LOOP ROAD CCS C-1
F6-F6A	N. PT. HIGGINS ROAD CCS C-2
F7-F7A	REVILLA ROAD CCS C-3
F8-F8A	SPEAR ROAD CCS C-4
P1	EROSION AND SEDIMENT CONTROL PLAN
Q1	JUNCTION BOX DETAILS
Q2	LOOP DETECTOR DETAILS
Q3	PIEZOELECTRIC TRAFFIC SENSOR DETAILS
T1-T2	TRAFFIC CONTROL PLANS

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:  
 L-26.00, L-30.10 S-31.01

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

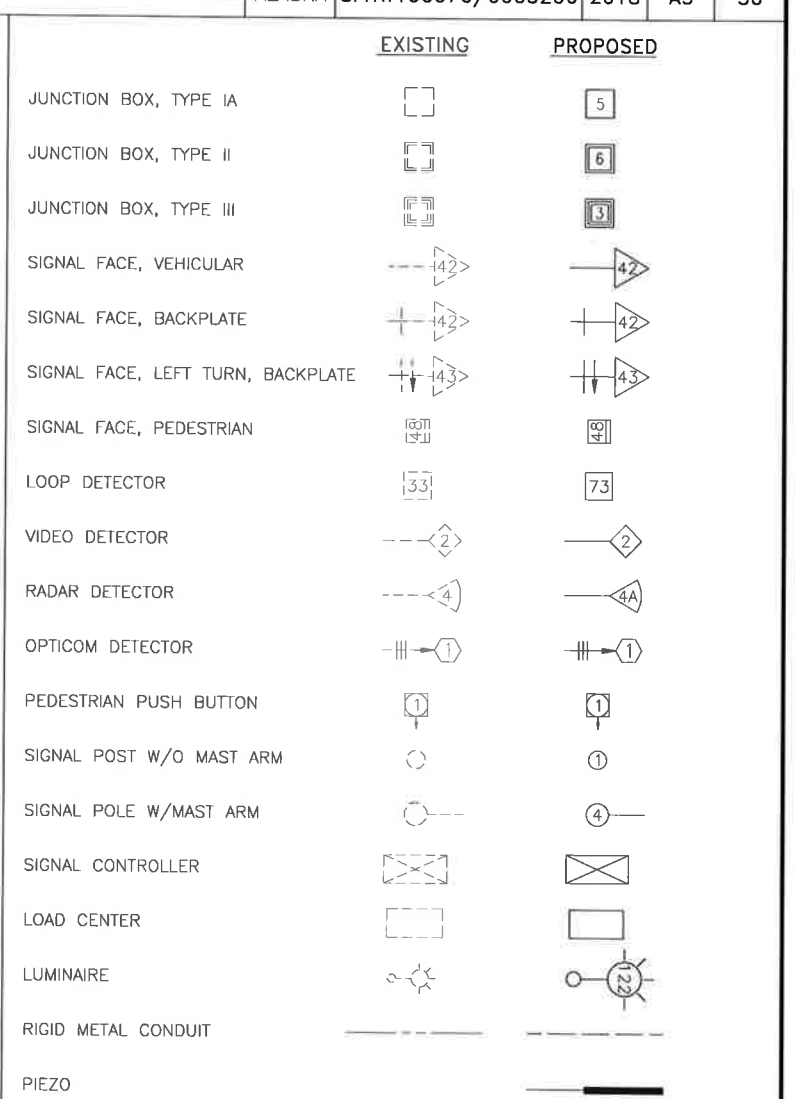
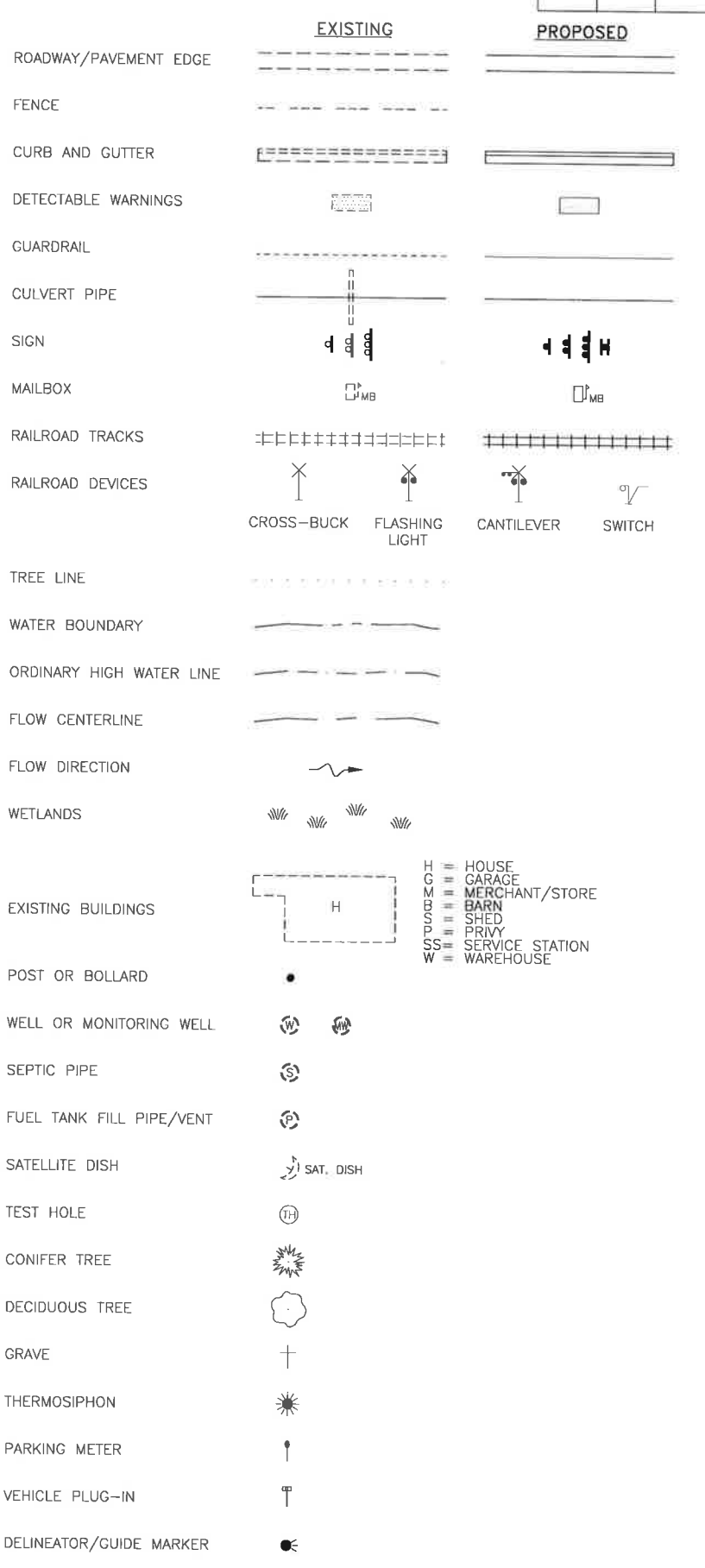
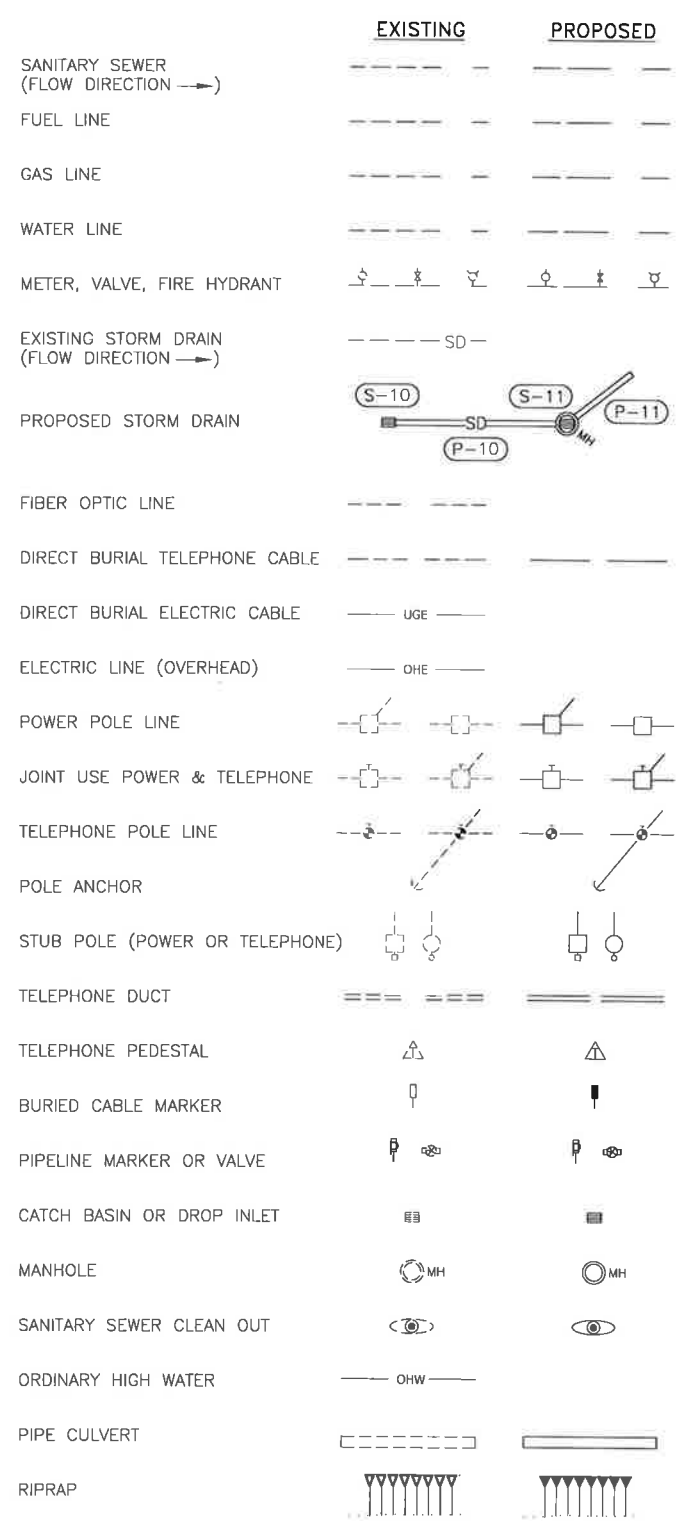
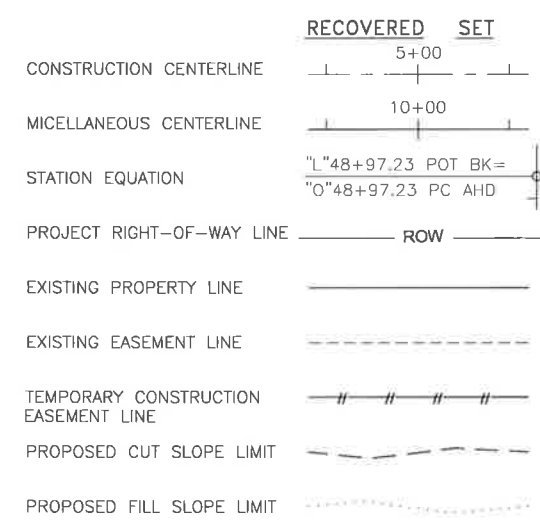
PE \_\_\_\_\_ Date \_\_\_\_\_



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**

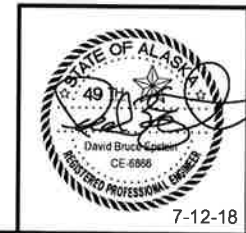
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			ALASKA	SFHwy00076/0003206	2018	A3	30

DESIGNED: EPSTEIN  
 DRAWN: STEVENS  
 CHECKED: EPSTEIN  
 SCALE: A3  
 LAYOUT: A3  
 REVISED: 7/12/2018 7:15  
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- H = HOUSE
- G = GARAGE
- M = MERCHANT/STORE
- B = BARN
- S = SHED
- P = PRIVY
- SS = SERVICE STATION
- W = WAREHOUSE

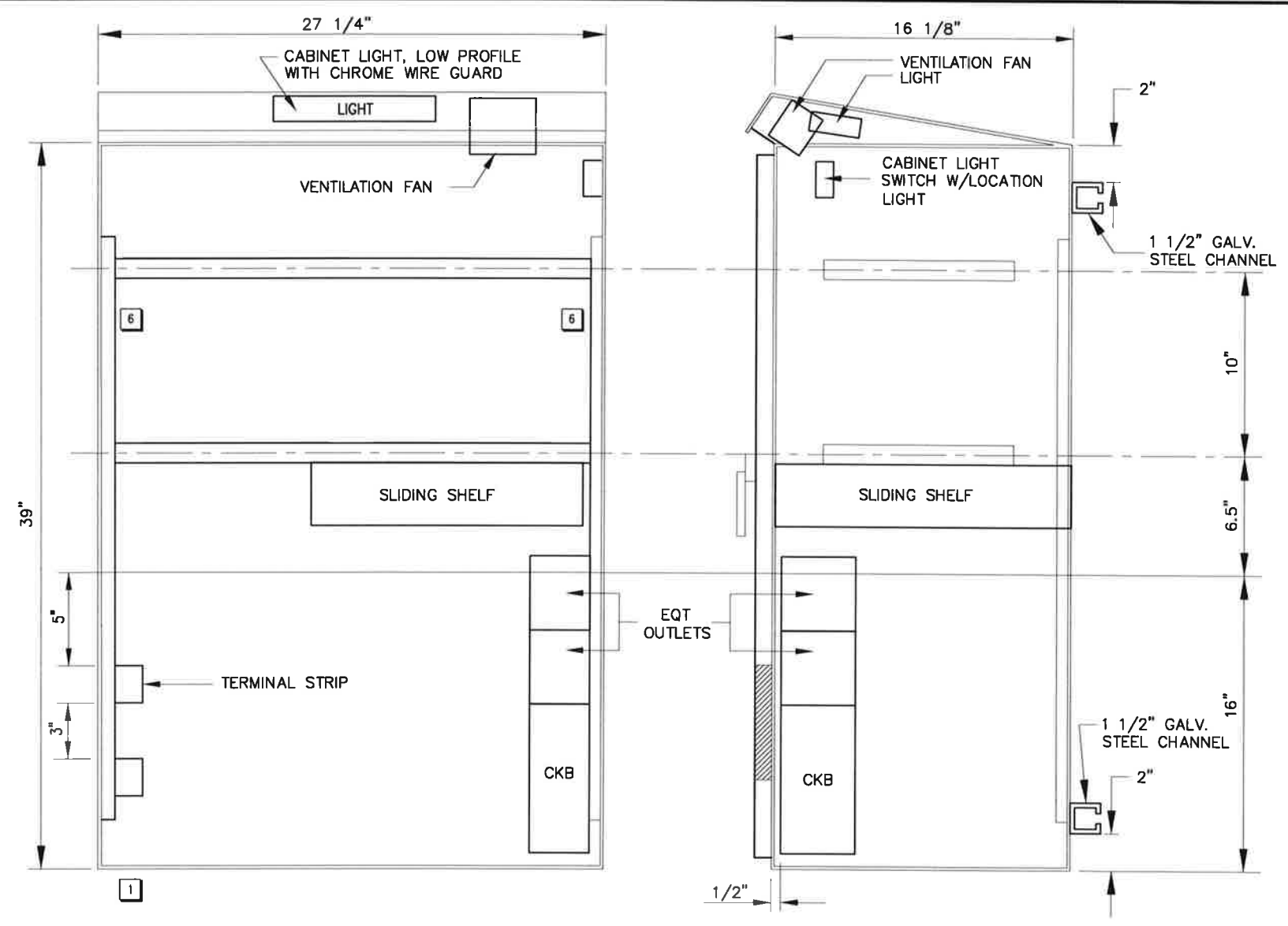
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 PE \_\_\_\_\_ Date \_\_\_\_\_



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 SR HIGHWAY DATA EQUIPMENT  
 ACQUISITION & INSTALLATION  
 LEGEND / SYMBOLS  
 7-12-18

FILE C:\SEA\SFHWY00076\Plans\SFHWY00076\_B1.dwg DATE 7/12/2018 7:17 LAYOUT B1 DESIGNED DE CHECKED DE DRAFTED DS

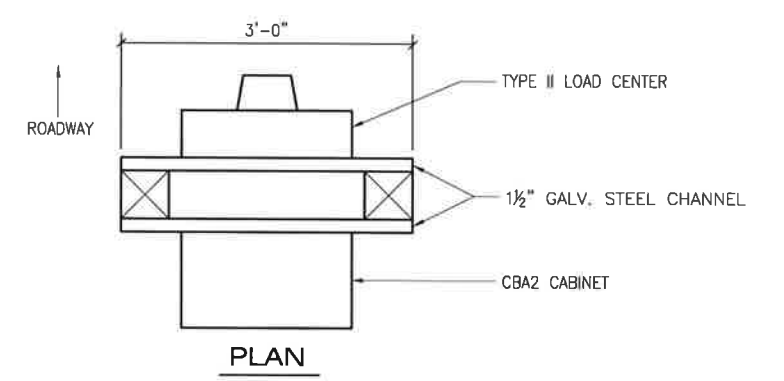
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			ALASKA	SFHwy00076/0003206	2018	B1	30



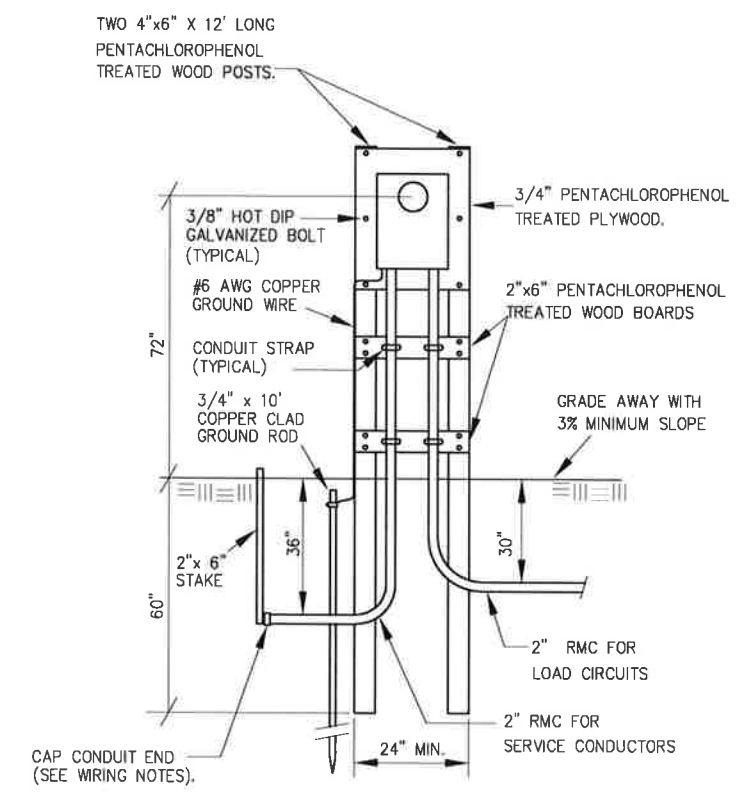
CBA2 CABINET DETAILS

NOTES

- 1 USE CONDUIT HUBS IN BOTTOM OF CABINET. USE STAINLESS STEEL HUBS WITH NEOPRENE SEAL AND INSULATED THROAT FOR NON-POWER CONDUITS WITH DETECTOR LEAD-IN CABLES AND TELEPHONE SERVICE. USE STAINLESS STEEL HUBS FOR SERVICE ENTRANCE CONDUIT AND CONNECT FLEXIBLE METAL CONDUIT TO CB PANEL INSIDE CABINET.
- 2 PROVIDE VOLTAGE SURGE PROTECTION IN CB PANEL.
- 3 ALL 120V WIRING, INCLUDING THAT FOR PANELBOARD, LIGHT, FAN, AND THERMOSTATS TO BE IN FLEXIBLE METAL CONDUIT WITH EXCEPTION OF CORD CONNECTED ELECTRONIC EQUIPMENT.
- 4 CABINET TO BE CERTIFIED BY NATIONALLY RECOGNIZED INDEPENDENT THIRD PARTY TESTING AGENCY (UL, CSA, FM, ETC.).
- 5 ALL EQUIPMENT INSIDE CABINET TO BE FASTENED TO RAILS WITH NO SCREW PENETRATIONS OF THE CABINET SURFACE.
- 6 SIDE RAILS TO BE INSTALLED TO PERMIT HORIZONTAL ADJUSTMENT OF VERTICAL RAILS.
- 7 CONTROLLER CABINET DOORS TO OPEN AWAY FROM ROADWAY.
- 8 USE FACTORY 90° ELBOWS TO/FROM J-BOXES ON ALL CONDUITS LARGER THAN 1 INCH.
- 9 ALL CONDUIT SHALL BE RMC UNLESS NOTED OTHERWISE. SEE SCHEDULE FOR SIZE.
- 10 NOT ALL CONDUITS SHOWN IN DETAIL. ADD OTHERS AS REQUIRED.



PLAN



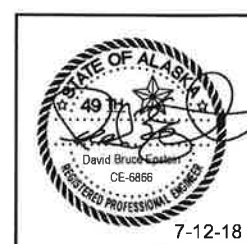
TYPE II LOAD CENTER  
DUAL POST - ALTERNATE

TYPICAL CABINET &  
LOAD-CENTER DETAIL

- NOTES:
1. LOAD CENTER SHALL BE ON SIDE FACING ROADWAY.
  2. INSTALLATION SHALL CONFORM TO STANDARD DRAWING L-26.00, TYPE II LOAD CENTER, DUAL POST ALTERNATIVE.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



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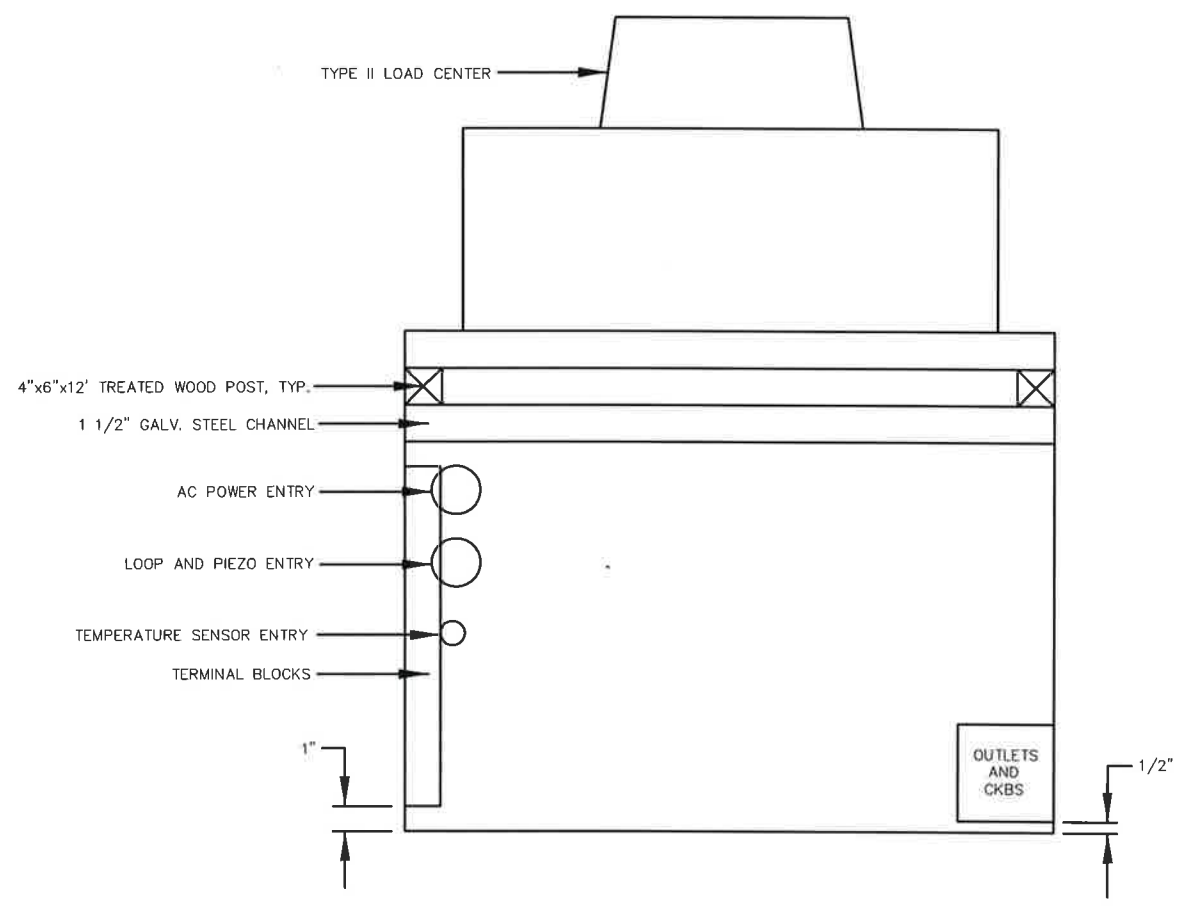
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**

**TYPE II LOAD CENTER AND CBA2 CONTROL CABINET DETAILS**

7-12-18

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			ALASKA	SFHWY00076/0003206	2018	B2	30



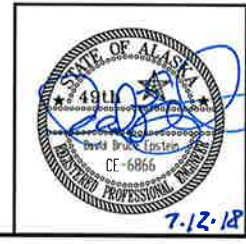
CABINET TOP VIEW

SUMMARY OF LOAD CENTER, TYP.	
<b>LOAD CENTER TYPE 2</b>	
LOAD CENTER:	LOCATION DATA: TYP. FOR ALL
POWER SOURCE:	POWER POLE, TYP. FOR ALL
PHOTOELECTRIC CONTROL:	NO
SERVICE VOLTAGE	1 PHASE, 3-WIRE, 120/240 VOLTS, 60 Hz.
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS--SERIES RATED	10,000 AIC
PROVIDE METER SOCKET?	YES SERVICE AMPS 100
MAIN BREAKER A:	120/240 VOLT, 2 POLE, 40 AMPERES
CONTACTOR:	

1. CONTRACTOR SHALL HAVE METERS INSTALLED, AND PAY ANY FEES REQUIRED BY THE LOCAL UTILITY AFTER CONSTRUCTION. THE STATE WILL ACCEPT MONTHLY BILLING WHEN THE FINAL PROJECT IS ACCEPTED BY THE ENGINEER.
2. THIS SUMMARY APPLIES TO ALL SITES.
3. INSTALL IN ACCORDANCE WITH STANDARD DRAWING L-26.00.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



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**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**

ATR2 CABINET TOP VIEW AND LOAD CENTER SUMMARY

FILE | Q:\SEA\SFH00076\Plans\SFHW00076\_C1.dwg | DATE | 7/19/2018 8:23 | LAYOUT | MODEL | DESIGNED | DE | CHECKED | DE | DRAFTED | DS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH00076/0003206	2018	C1	30

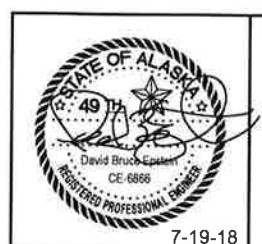
Addendum #1; Attachment 3

ESTIMATE OF QUANTITIES					Actual
ITEM NO.	SSHC 2017 ITEM NO.	ITEM	UNIT	QUANTITY	QUANTITY
201.2002.0000	201(8)	INVASIVE PLANT SURVEY	L.S.	ALL REQUIRED	ALL REQUIRED
201.2003.0000	201(9)	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL	C.S.	ALL REQUIRED	NONE REQUIRED
202.0002.0000	202(2)	REMOVAL OF PAVEMENT	S.Y.	3,500	4001.00
301.0002.0001	301(2)	AGGREGATE BASE COURSE, GRADING D-1	C.Y.	600	750.64
401.0006.002B	401(6)	HMA, TYPE II, CLASS B	S.Y.	3,500	4017.70
640.0001.0000	640(1)	MOBILIZATION AND DEMOBILIZATION	L.S.	ALL REQUIRED	ALL REQUIRED
640.0004.0000	640(4)	WORKER MEALS AND LODGING, OR PER DIEM	L.S.	ALL REQUIRED	ALL REQUIRED
641.0001.0000	641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	L.S.	ALL REQUIRED	ALL REQUIRED
641.0003.0000	641(3)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	L.S.	ALL REQUIRED	ALL REQUIRED
641.0005.0000	641(5)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	C.S.	ALL REQUIRED	NONE REQUIRED
641.0006.0000	641(6)	WITHHOLDING	C.S.	ALL REQUIRED	NONE REQUIRED
642.0001.0000	642(1)	CONSTRUCTION SURVEYING	L.S.	ALL REQUIRED	NONE REQUIRED
643.0002.0000	643(2)	TRAFFIC MAINTENANCE	L.S.	ALL REQUIRED	ALL REQUIRED
643.0015.0000	643(15)	FLAGGING	C.S.	ALL REQUIRED	\$64,699.00
643.0023.0000	643(23)	TRAFFIC PRICE ADJUSTMENT	C.S.	ALL REQUIRED	NONE REQUIRED
643.0025.0000	643(25)	TRAFFIC CONTROL	C.S.	ALL REQUIRED	\$8,048.60
670.0001.0000	670(1)	PAINTED TRAFFIC MARKINGS	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, C-1, JUNEAU BACK LOOP ROAD CCS CONSTRUCTION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, C-2, KETCHIKAN N. POINT HIGGINS ROAD CCS CONSTRUCTION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, C-3, KETCHIKAN REVILLA ROAD CCS CONSTRUCTION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, C-4, WRANGELL SPEAR ROAD CCS CONSTRUCTION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, R-1, HAINES HIGHWAY CCS REHABILITATION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, R-2, SKAGWAY KLONDIKE HIGHWAY CCS REHABILITATION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, R-3, KETCHIKAN N. TONGASS HIGHWAY CCS REHABILITATION	L.S.	ALL REQUIRED	ALL REQUIRED
699.0001.0000		ASSEMBLY, R-4, WRANGELL ZIMOVIA HIGHWAY CCS REHABILITATION	L.S.	ALL REQUIRED	ALL REQUIRED

CHANGE ORDERS				
ITEM NO.	CO #	ITEM	UNIT	QUANTITY
699-2.01	CO-1	Automated Traffic Recorders		
401-3.03	CO-2	Paving Date Extension		
699.0001.0000(A)	CO-3	Cabinet Conductor Lead Shields	L.S.	1.00
203(2A)	CO-4	Rock Excavation - Wrangell	L.S.	1.00

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

PE \_\_\_\_\_ Date \_\_\_\_\_



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
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**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**

ESTIMATE OF QUANTITIES

7-19-18

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**HNS HAINES HIGHWAY ROUTE NO 298000**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
R1	1.36	42'	CBA2	4	4 PIEZO	TYPE II	EXISTING	4 TYPE 2	N/A

**SGY KLONDIKE HIGHWAY ROUTE NO 299500**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
R2	1.03	42'	CBA2	4	4 PIEZO	TYPE II	EXISTING	4 TYPE 2	N/A

**KTN N. TONGASS HIGHWAY ROUTE NO 291500**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
R3	1.33	41'	CBA2	4	4 PIEZO	TYPE II	EXISTING	4 TYPE 2	N/A

**WRG ZIMOVIA HIGHWAY ROUTE NO 293300**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
R4	0.71	41'	CBA2	4	4 PIEZO	EXISTING	EXISTING	4 TYPE 2	N/A

**JNU MENDENHALL (BACK) LOOP RD CDS ROUTE NO 296401**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
C1	1.05	57'	CBA2	EXISTING	N/A	TYPE II	BOTH REQUIRED (CELL MODEM)	N/A	NEW, INSTALL DSL MODEM

**KTN N. PT. HIGGINS RD CDS ROUTE NO 291567**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
C2	0.46	35'	CBA2	4	4 PIEZO	TYPE II	BOTH REQUIRED (TELEPHONE LINE)	4 TYPE 2	NEW, INSTALL PHONE LINE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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**KTN REVILLA RD CDS ROUTE NO. 291553**

**CCS ASSEMBLY SCHEDULE**

SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX & TYPE	TELEPHONE SERVICE
C3	0.20	25'	CBA2	4	4 PIEZO	TYPE 2	BOTH REQUIRED (TELEPHONE LINE)	4 TYPE 2	NEW, INSTALL DSL MODEM

**WRG SPEAR RD CDS ROUTE NO 293311**

**CCS ASSEMBLY SCHEDULE**

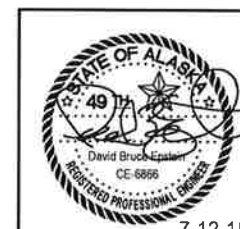
SITE DESIGNATION	CDS MILEPOST	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	AVC SENSOR & TYPE	LOAD CENTER & TYPE	ELECTRICAL & TELEPHONE SERVICE	JUNCTION BOX	TELEPHONE SERVICE
C4	0.28	42'	CBA2	4	4 PIEZO	TYPE 2	BOTH REQUIRED (CELL MODEM)	4 TYPE 2	NEW, INSTALL DSL MODEM

**NOTES:**

1. INSTALLATION OF EQUIPMENT AND MATERIALS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE CURRENT NESC AND NEC.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS AND DIMENSIONS.
3. USE ONLY RIGID METAL CONDUIT (RMC) EXCEPT FOR THE POLYVINYL CHLORIDE (PVC) LOOPS.
4. UNUSEABLE EXCAVATION SHALL BE HAULED AND DISPOSED TO A WASTE SITE DESIGNATED BY THE ENGINEER.
5. THE CONTRACTOR SHALL MARK THE TRENCH BY PLACING WARNING TAPE OVER ALL POWER CONDUITS UNDERGROUND.
6. PIEZOELECTRIC SENSORS FOR ALL SITES EXCEPT R4--WRANGELL ZIMOVIA HIGHWAY WILL BE 11 FT. LONG WITH ONE FOOT OF LENGTH EXTENDING OVER THE FOG LINE.
7. THE PIEZOELECTRIC SENSORS FOR SITE R4--WRANGELL ZIMOVIA HIGHWAY SHALL BE 10 FT. LONG CENTERED IN THE TRAVEL LANE.

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PE \_\_\_\_\_ Date \_\_\_\_\_

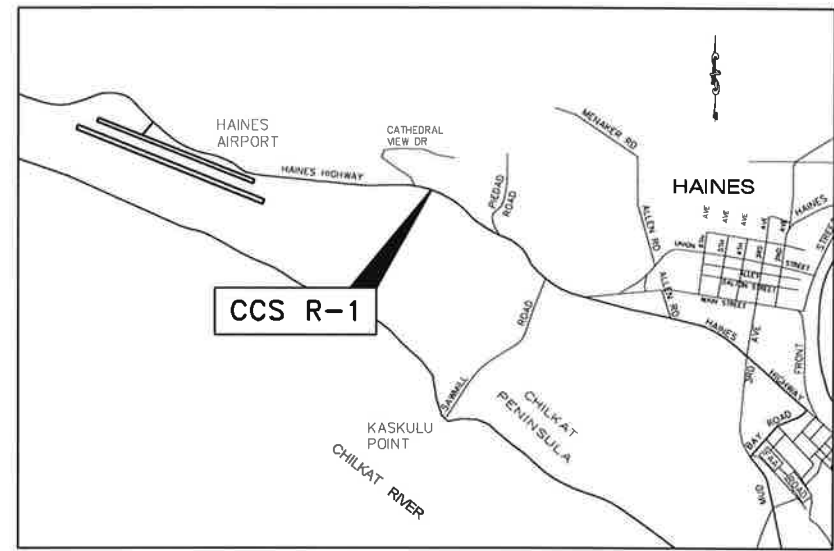


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**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
 BASIS OF ESTIMATE/  
 GENERAL NOTES

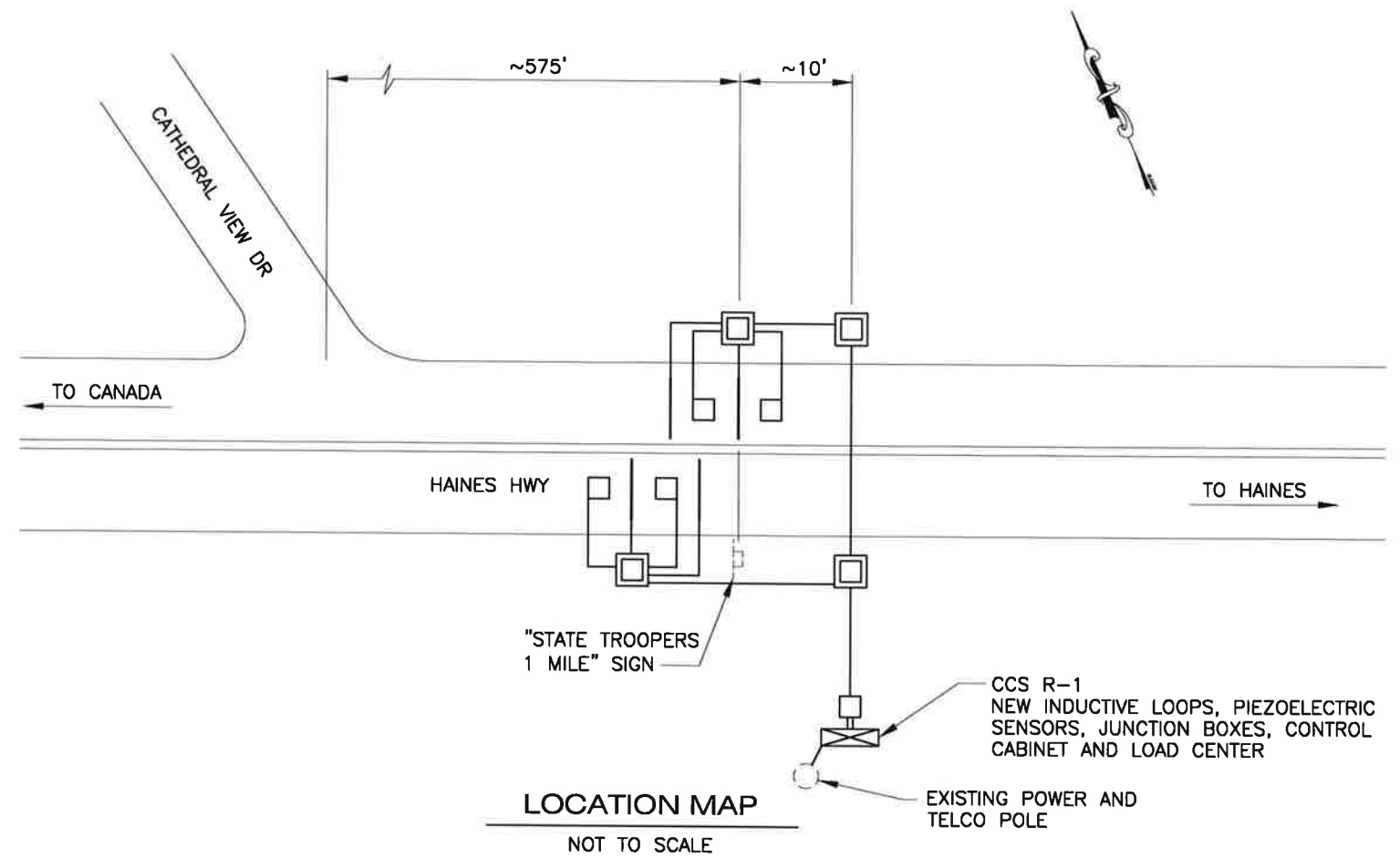
7-12-18

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH000076/0003206	2018	F1	30

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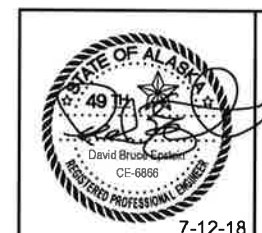
VICINITY MAP



LOCATION MAP  
NOT TO SCALE

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

PE \_\_\_\_\_ Date \_\_\_\_\_

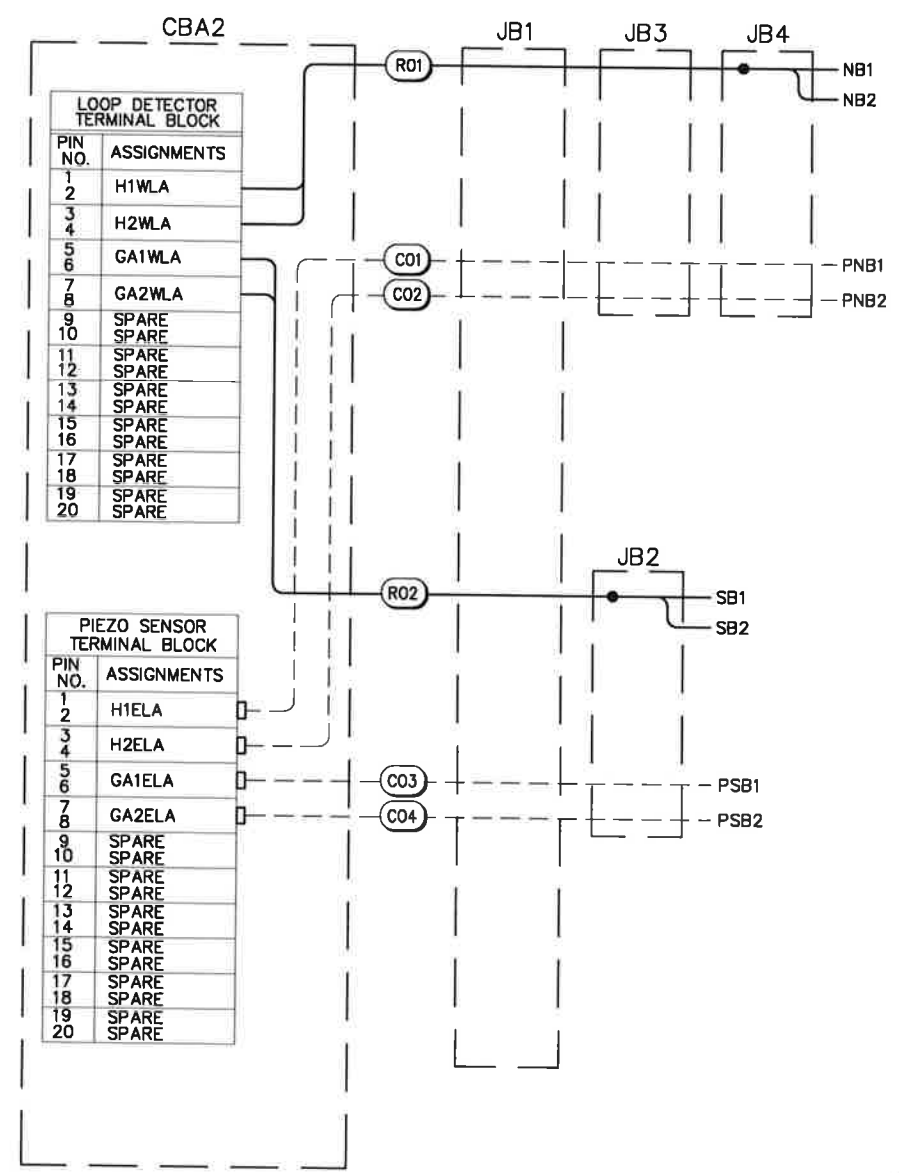
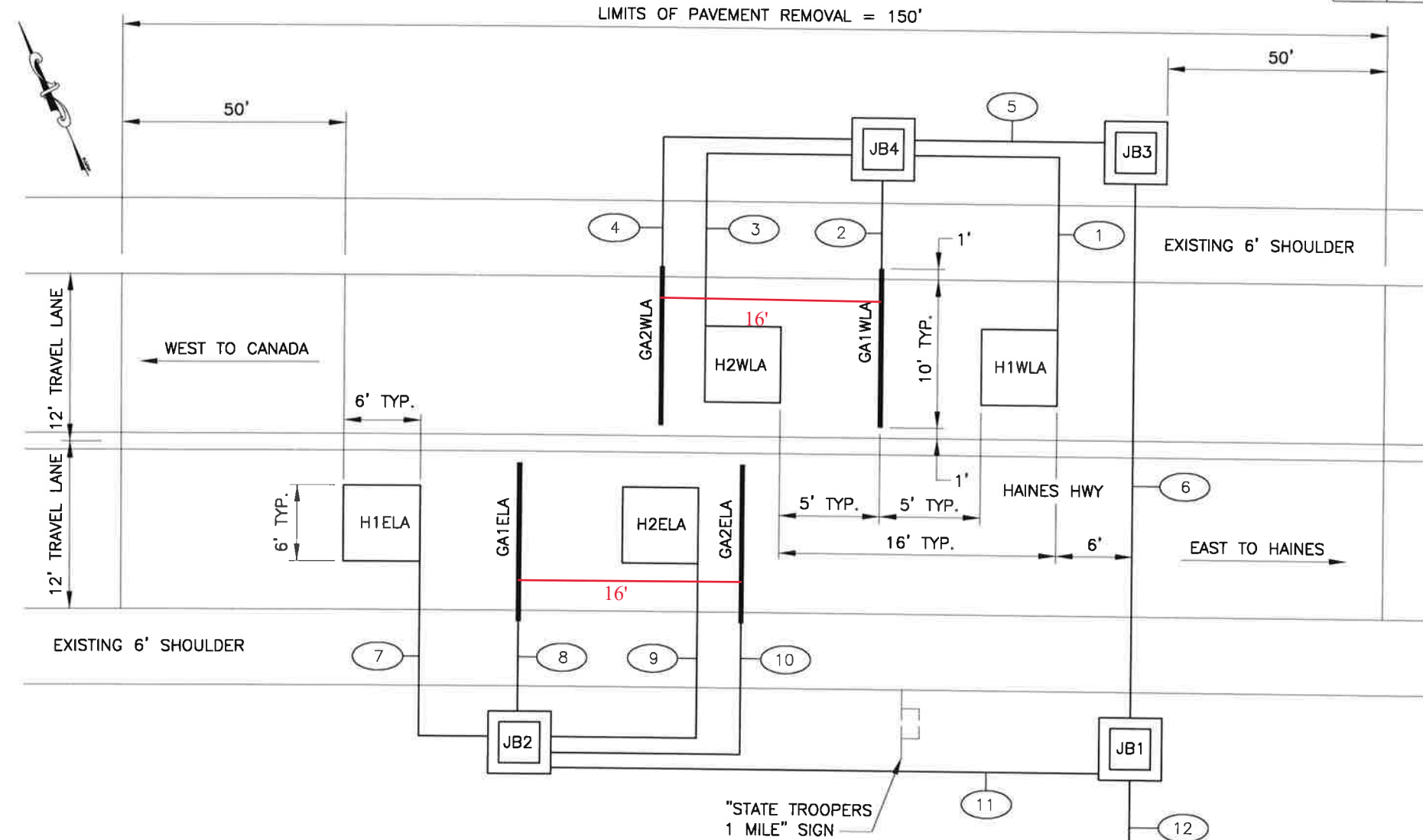


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763

**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**CCS R-1 LOCATION**  
**HAINES HIGHWAY**  
**HAINES, ALASKA**

7-12-18

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00076/0003206	2018	F1A	30



CONDUIT SCHEDULE						
TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
①	1"	NEW	H1WLA	JB4	1-1PR#14	
②	1"	NEW	GA1WLA	JB4	RG58 COAX	CO1
③	1"	NEW	H2WLA	JB4	1-1PR#14	
④	1"	NEW	GA2WLA	JB4	RG58 COAX	CO2
⑤	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
⑥	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
⑦	1"	NEW	H1ELA	JB2	1-1PR#14	
⑧	1"	NEW	GA1ELA	JB2	RG58 COAX	CO3
⑨	1"	NEW	H2ELA	JB2	1-1PR#14	
⑩	1"	NEW	GA2ELA	JB2	RG58 COAX	CO4
⑪	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 CO3,CO4
⑫	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	R01,R02 CO1,CO4

**PLAN**  
**SITE DETAIL**  
NOT TO SCALE

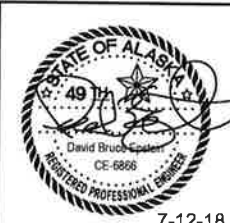
**TERMINAL BLOCK WIRING DIAGRAM**  
NTS

- NOTES:**
1. REMOVE EXISTING JUNCTION BOX, TYPE 2 LOAD CENTER AND CONTROL CABINET. REPLACE WITH NEW TYPE II JUNCTION BOXES, TYPE 2 LOAD CENTER AND CBA2 CONTROL CABINET IN SAME LOCATIONS.
  2. INSTALL NEW TYPE II JUNCTION BOXES, LOOP DETECTORS AND PIEZOELECTRIC TRAFFIC SENSORS IN ACCORDANCE WITH SHEETS Q1 THROUGH Q3, RESPECTIVELY.
  3. RESTORE OBLITERATED PAVEMENT MARKINGS TO THEIR STATUS QUO ANTE CONFIGURATION.

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

PE \_\_\_\_\_ Date \_\_\_\_\_

- NOTES:**
1. SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
  2. COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

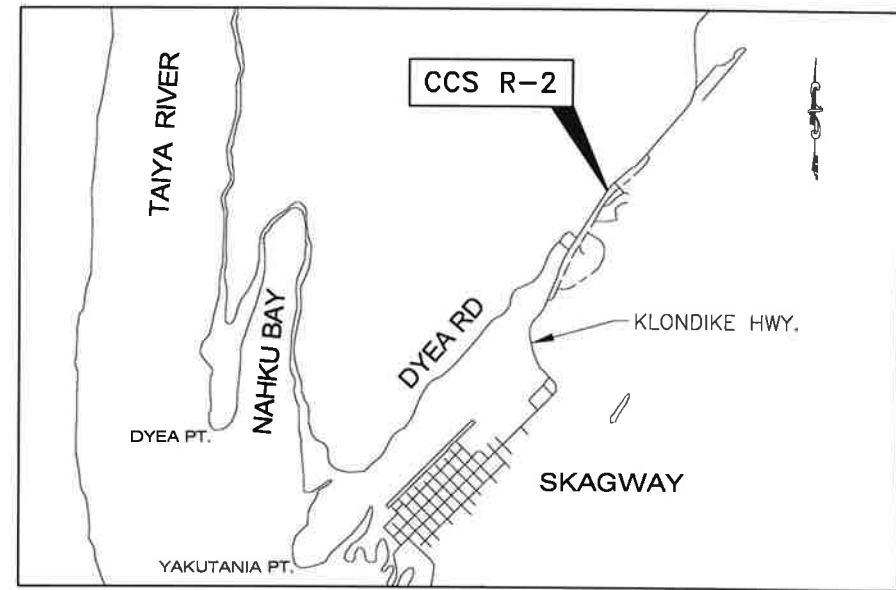


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
8860 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763

**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**CCS R-1 LOCATION**  
**HAINES HIGHWAY**  
**HAINES, ALASKA**

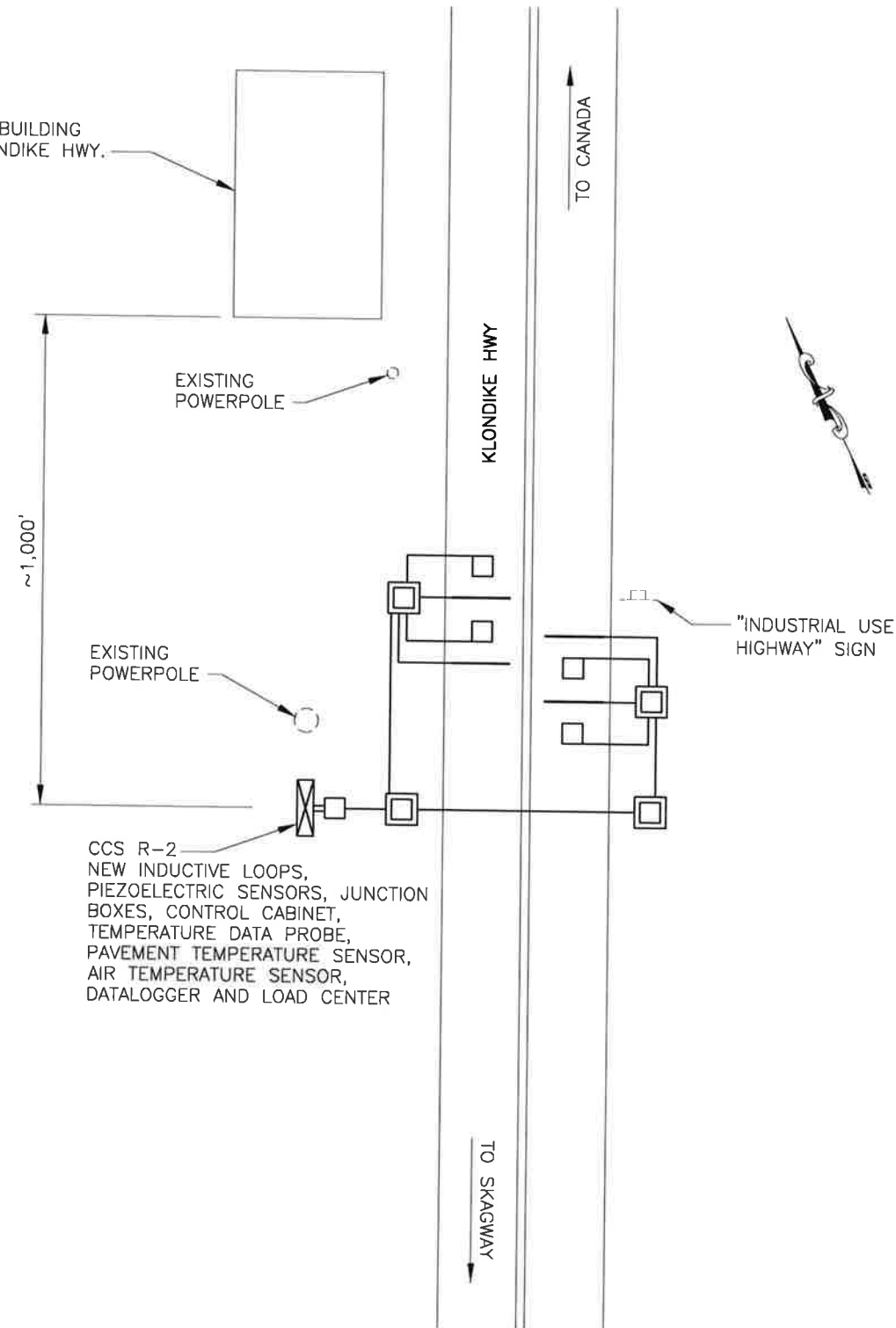
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHwy00076/0003206	2018	F2	30



VICINITY MAP

EXISTING SOA DOT&PF MAINTENANCE BUILDING 2.5-MILE KLONDIKE HWY.



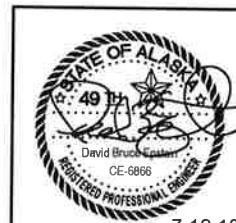
LOCATION MAP

NOT TO SCALE

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

PE

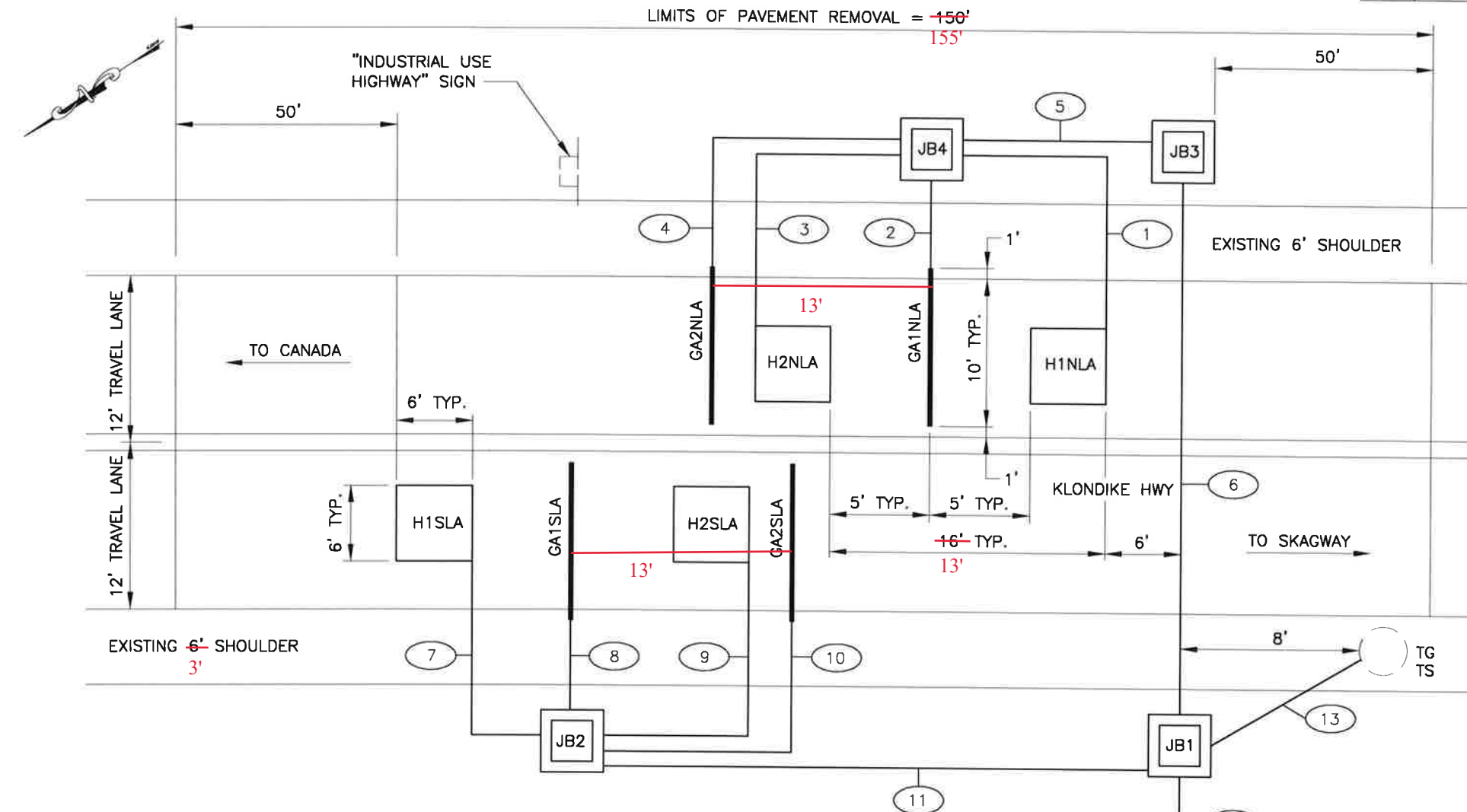
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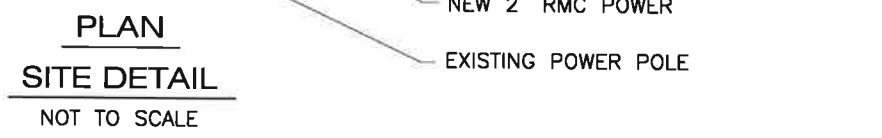
7-12-18

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6880 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**CCS R-2 LOCATION**  
**KLONDIKE HIGHWAY**  
**SKAGWAY, ALASKA**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH000076/0003206	2018	F2A	30



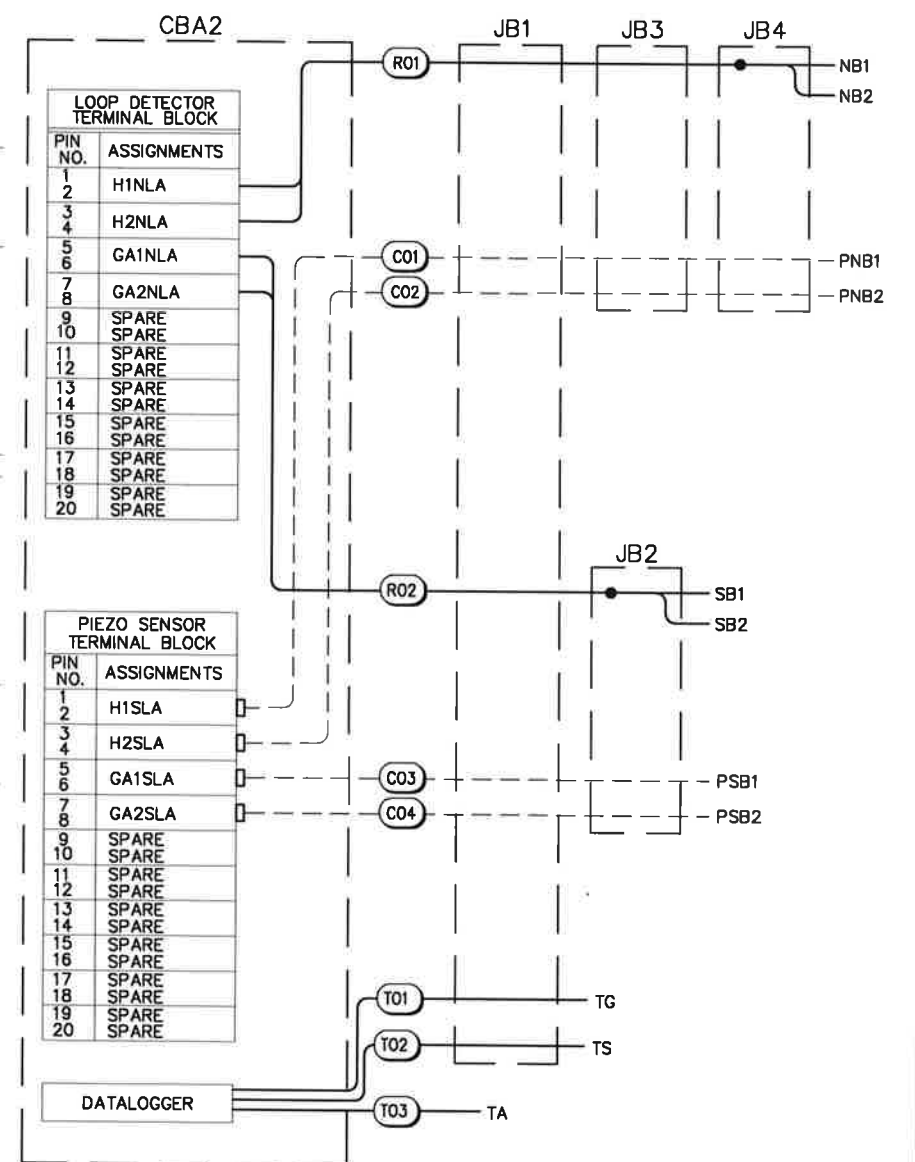
CONDUIT SCHEDULE						
TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
1	1"	NEW	H1NLA	JB4	1-1PR#14	
2	1"	NEW	GA1NLA	JB4	RG58 COAX	CO1
3	1"	NEW	H2NLA	JB4	1-1PR#14	
4	1"	NEW	GA2NLA	JB4	RG58 COAX	CO2
5	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
6	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
7	1"	NEW	H1SLA	JB2	1-1PR#14	
8	1"	NEW	GA1SLA	JB2	RG58 COAX	CO3
9	1"	NEW	H2SLA	JB2	1-1PR#14	
10	1"	NEW	GA2SLA	JB2	RG58 COAX	CO4
11	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 CO3,CO4
12	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX 3-2C#18	R01,R02 CO1,CO4
13	1"	NEW	TG, TS	JB1	2-2C#18	TO1, TO2
14	1"	NEW	TA	CBA2	1-2C#18	TO3



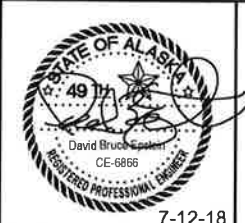
- NOTES:**
- REMOVE EXISTING JUNCTION BOX, TYPE 2 LOAD CENTER AND CONTROL CABINET. REPLACE WITH NEW TYPE II JUNCTION BOXES, TYPE 2 LOAD CENTER AND CBA2 CONTROL CABINET IN SAME LOCATIONS.
  - INSTALL NEW TYPE II JUNCTION BOXES, LOOP DETECTORS AND PIEZOELECTRIC TRAFFIC SENSORS IN ACCORDANCE WITH SHEETS Q1 THROUGH Q3, RESPECTIVELY.
  - RESTORE OBLITERATED PAVEMENT MARKINGS TO THEIR STATUS QUO ANTE CONFIGURATION.
  - MOUNT AMBIENT AIR TEMPERATURE PROBE AS DIRECTED BY THE ENGINEER.
  - TG AND TS ARE TEMPERATURE DATA PROBE AND PAVEMENT TEMPERATURE SENSOR, RESPECTIVELY.
  - TA IS AN AIR TEMPERATURE SENSOR.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



- NOTES:**
- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
  - COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

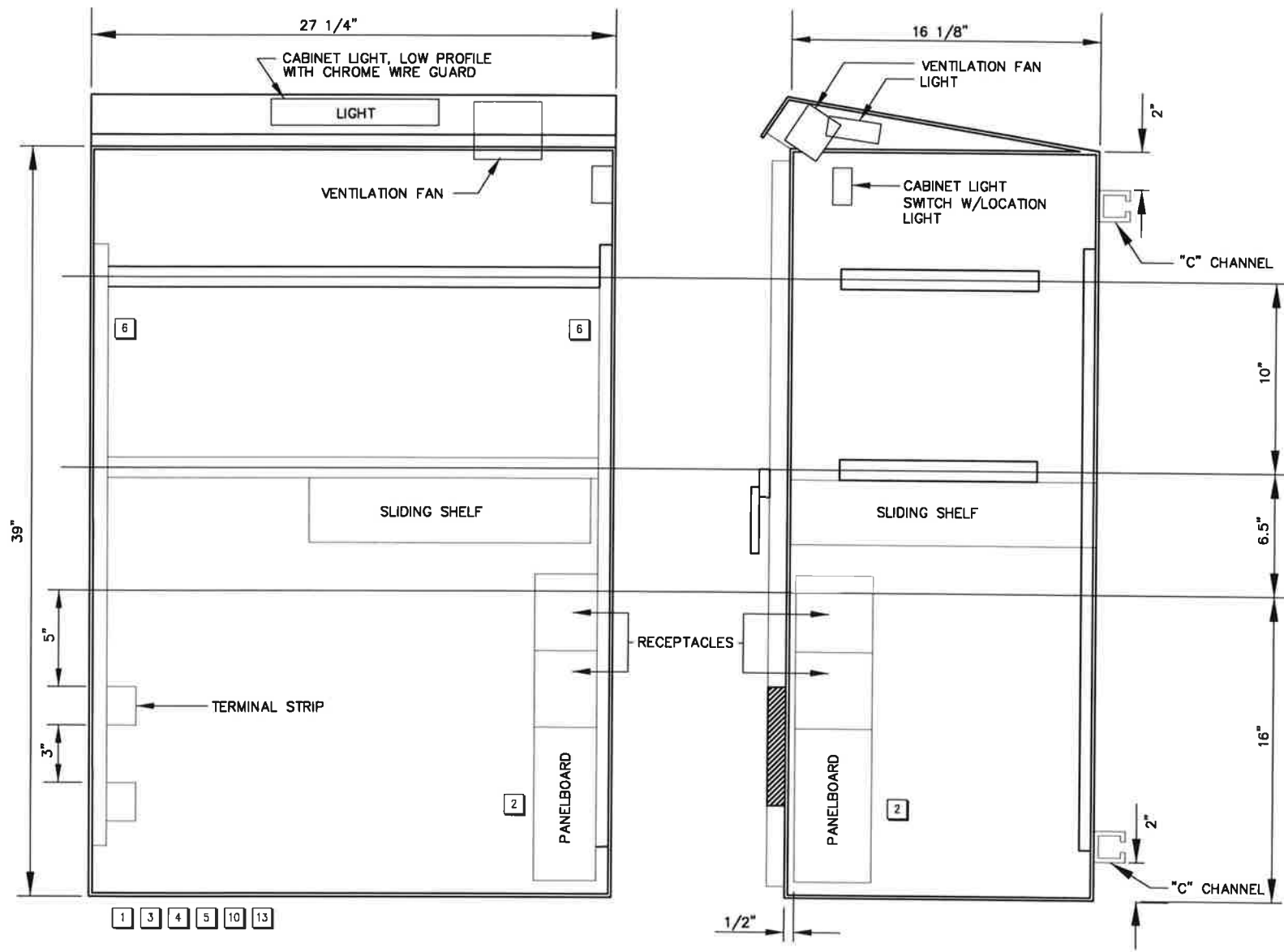


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763

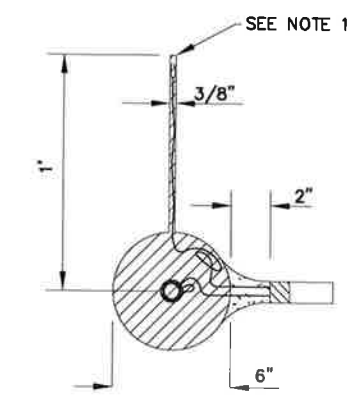
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
 CCS R-2 LOCATION  
 KLONDIKE HIGHWAY  
 SKAGWAY, ALASKA

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 DATE 5/1/2018 8:25 LAYOUT F2A  
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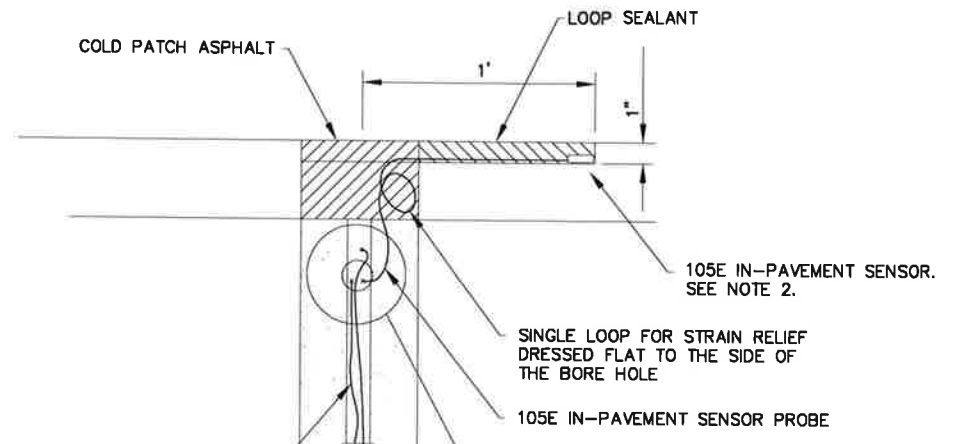
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F2B	30



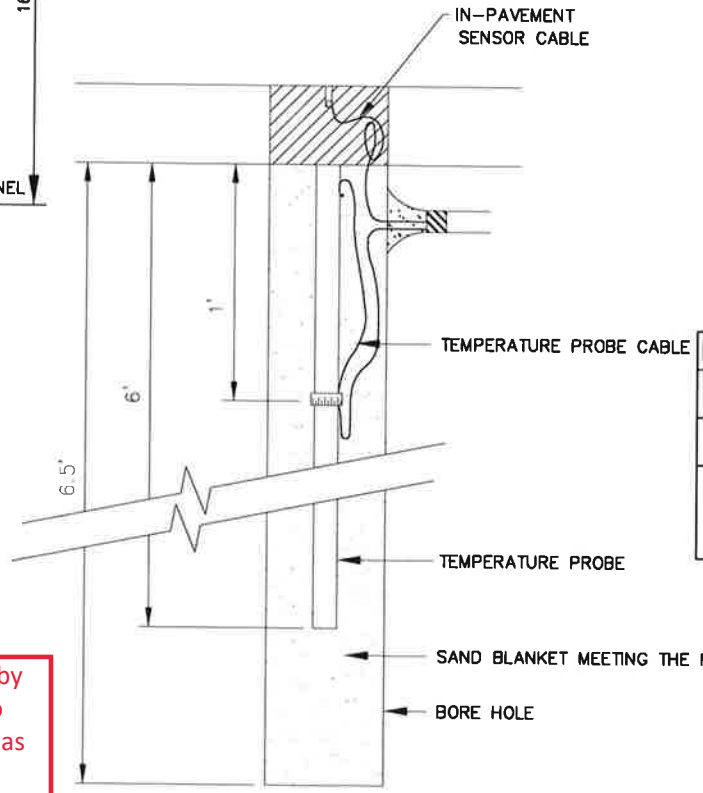
CBA2 CABINET DETAILS



TEMPERATURE SENSOR PLAN VIEW NTS



TEMPERATURE SENSOR DETAILS NTS



TEMPERATURE SENSOR ELEVATION NTS

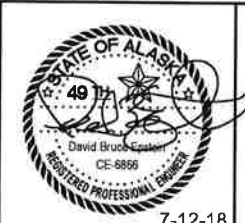
- NOTES:**
1. SLOT FOR IN-PAVEMENT SENSORS SHALL BE PARALLEL TO THE DIRECTION OF TRAVELED WAY.
  2. INSTALL NEW AMBIENT TEMPERATURE PROBE AND ASSOCIATED HARDWARE AS SHOWN.
  3. PREPARE COLD PATCH ASPHALT TO THE SIDE BEFORE SHOVELING INTO THE HOLE IN THE PAVEMENT. USE AQUAPHALT COLD MIX REPAIR MATERIAL, EZ STREET PREMIUM COLD ASPHALT, OR APPROVED EQUIVALENT.

**NOTES:**

1. USE CONDUIT HUBS IN BOTTOM OF CABINET, MYERS OR EQUAL. USE HUBS WITH NEOPRENE SEAL AND INSULATED THROAT FOR NON-POWER CONDUITS WITH DETECTOR LEAD-IN CABLES AND TELEPHONE SERVICE. USE HUBS FOR SERVICE ENTRANCE CONDUIT AND CONNECT FLEXIBLE METAL CONDUIT TO PANELBOARD INSIDE CABINET.
2. PROVIDE VOLTAGE SURGE PROTECTION IN PANELBOARD.
3. ALL 120V WIRING, INCLUDING THAT FOR PANELBOARD, LIGHT, FAN, AND THERMOSTATS TO BE IN FLEXIBLE METAL CONDUIT WITH EXCEPTION OF CORD CONNECTED ELECTRONIC EQUIPMENT.
4. CABINET TO BE CERTIFIED BY NATIONALLY RECOGNIZED INDEPENDENT THIRD PARTY TESTING AGENCY (UL, CSA, FM, ETC.).
5. ALL EQUIPMENT INSIDE CABINET TO BE FASTENED TO RAILS WITH NO SCREW PENETRATIONS OF THE CABINET SURFACE.
6. SIDE RAILS TO BE INSTALLED TO PERMIT HORIZONTAL ADJUSTMENT OF VERTICAL RAILS.
7. CABINET DOORS TO OPEN AWAY FROM ROADWAY.
8. USE FACTORY 90° ELBOWS TO/FROM J-BOXES ON ALL CONDUITS LARGER THAN 1\".
9. ALL CONDUIT SHALL BE RMC UNLESS NOTED OTHERWISE. SEE SCHEDULE FOR SIZE.
10. NOT ALL CONDUITS SHOWN IN DETAIL. ADD OTHERS AS REQUIRED.
11. PROVIDE FLANGE, FRANGIBLE COUPLING AND FOUNDATION PER DOT STANDARD DETAIL S-31.01.
12. INSTALL FOUNDATION IN SELECTED MATERIAL, TYPE A. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL WITH GRAVEL 2 FEET BELOW AND SURROUNDING THE FOUNDATION.
13. LOCKS SHALL BE CORBIN NO. 2, AND SHALL BE COMPATIBLE WITH EXISTING LOCKS.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



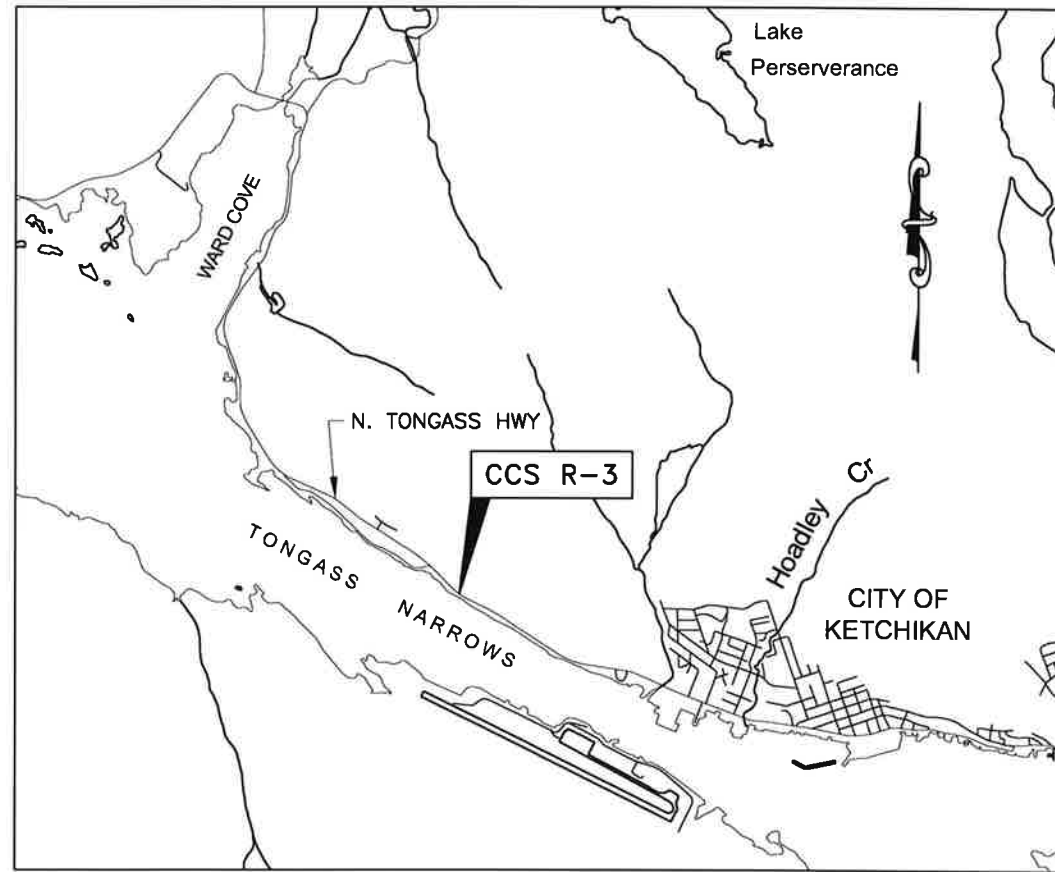
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763

**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION  
 CCS R-2 TEMPERATURE PROBE  
 KLONDIKE HIGHWAY  
 SKAGWAY, ALASKA**

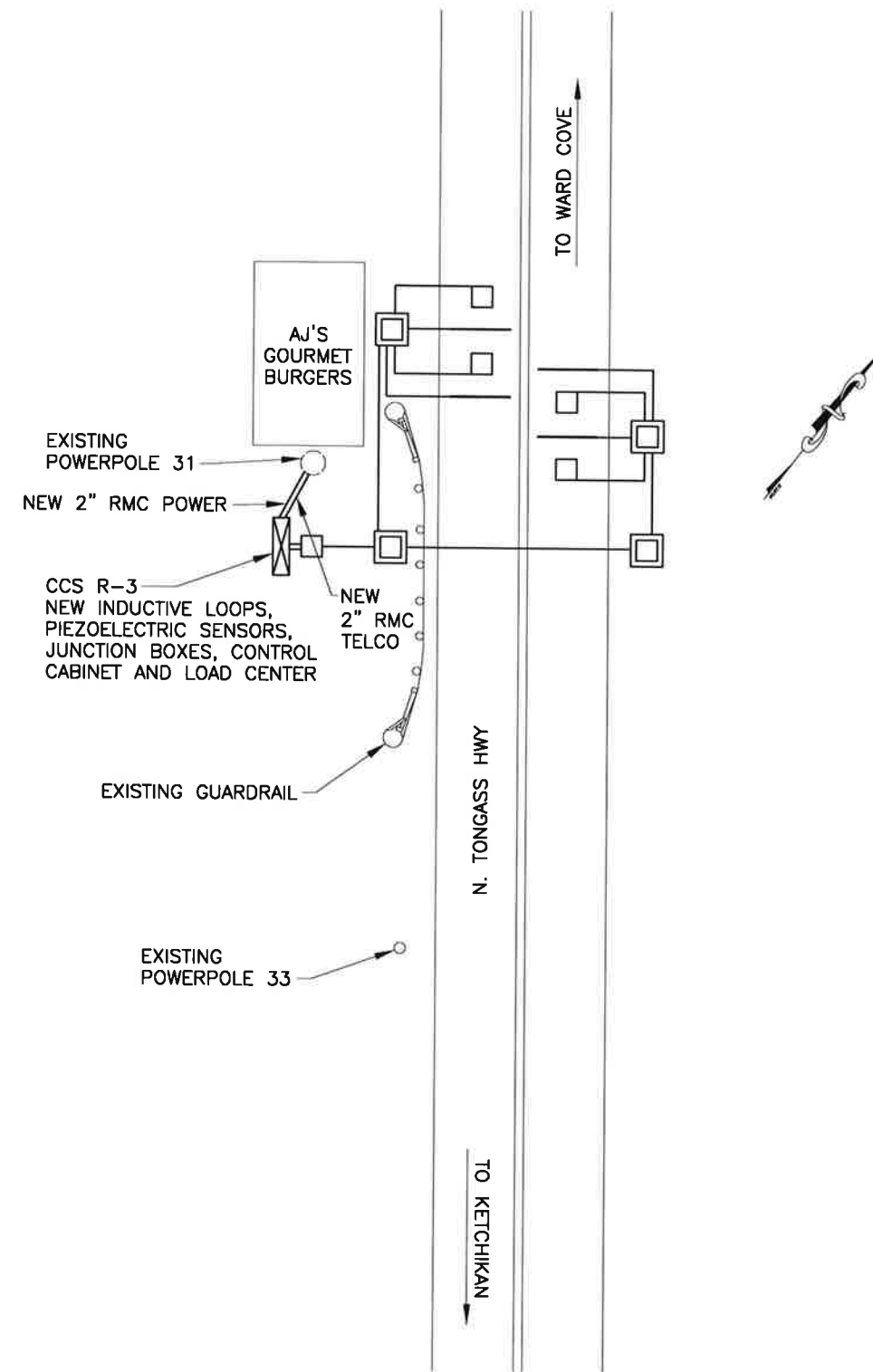
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F3	30



VICINITY MAP



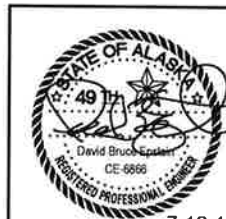
LOCATION MAP

NOT TO SCALE

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

PE

Date

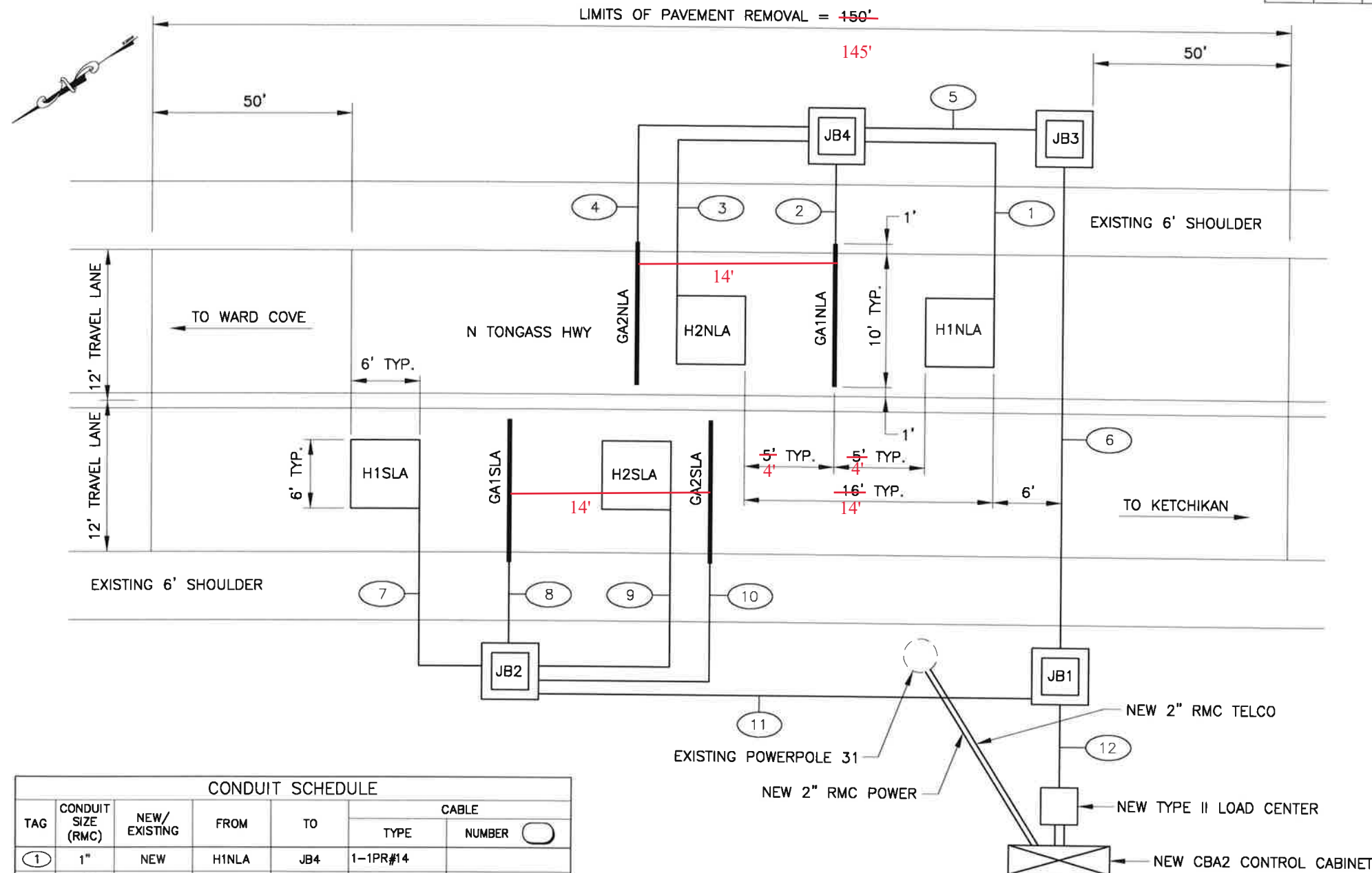


7-12-18

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**N. TONGASS HIGHWAY**  
**CCS R-3 LOCATION**  
**KETCHIKAN, ALASKA**

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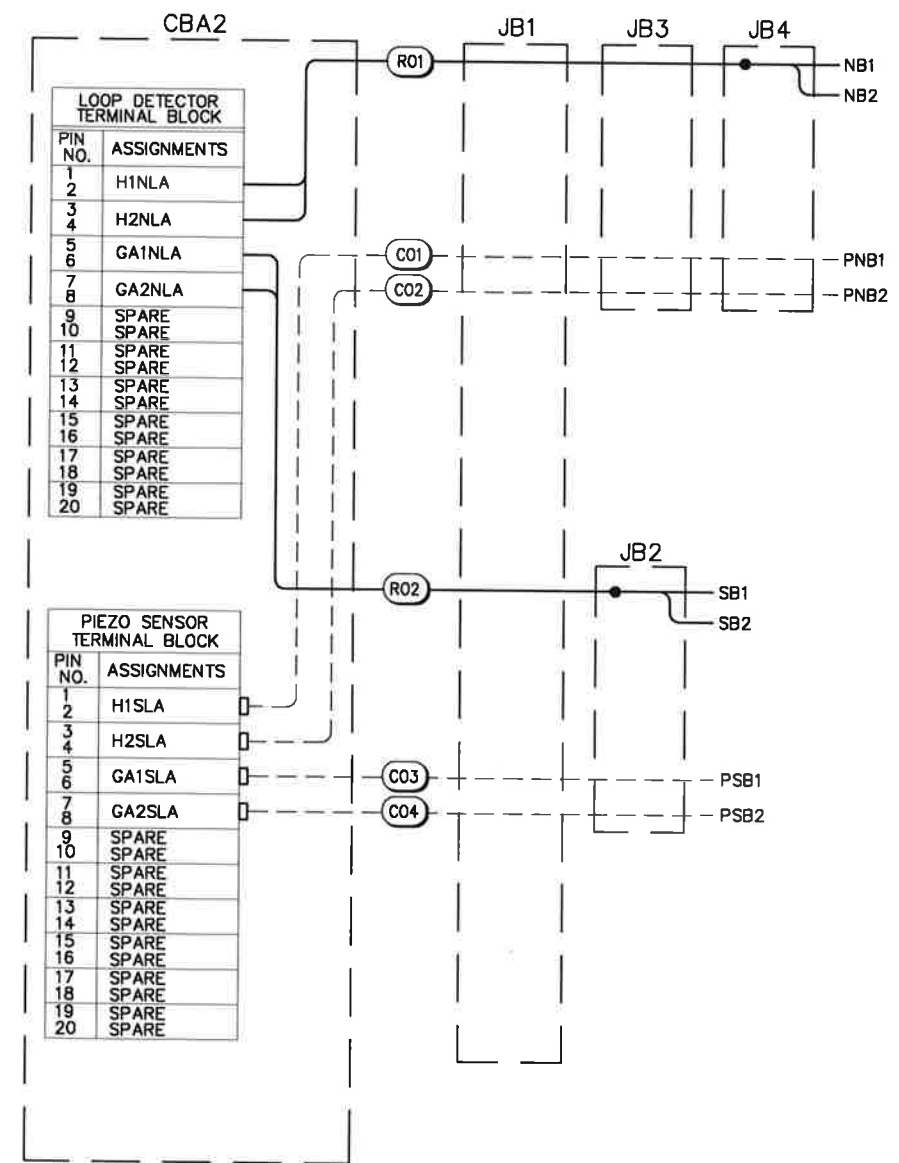
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F3A	30



CONDUIT SCHEDULE						
TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
①	1"	NEW	H1NLA	JB4	1-1PR#14	
②	1"	NEW	GA1NLA	JB4	RG58 COAX	CO1
③	1"	NEW	H2NLA	JB4	1-1PR#14	
④	1"	NEW	GA2NLA	JB4	RG58 COAX	CO2
⑤	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
⑥	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
⑦	1"	NEW	H1SLA	JB2	1-1PR#14	
⑧	1"	NEW	GA1SLA	JB2	RG58 COAX	CO3
⑨	1"	NEW	H2SLA	JB2	1-1PR#14	
⑩	1"	NEW	GA2SLA	JB2	RG58 COAX	CO4
⑪	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 CO3,CO4
⑫	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	R01,R02 CO1,CO4

**PLAN  
SITE DETAIL**  
NOT TO SCALE

- NOTES:**
- REMOVE EXISTING JUNCTION BOX, TYPE 2 LOAD CENTER AND CONTROL CABINET. REPLACE WITH NEW TYPE II JUNCTION BOXES, TYPE 2 LOAD CENTER AND CBA2 CONTROL CABINET IN SAME LOCATIONS.
  - INSTALL NEW TYPE II JUNCTION BOXES, LOOP DETECTORS AND PIEZOELECTRIC TRAFFIC SENSORS IN ACCORDANCE WITH SHEETS Q1 THROUGH Q3, RESPECTIVELY.
  - RESTORE OBLITERATED PAVEMENT MARKINGS TO THEIR STATUS QUO ANTE CONFIGURATION.
  - GUARDRAIL NOT SHOWN. IF NECESSARY TO REMOVE GUARDRAIL FOR CONSTRUCTION IMPLEMENT ROADWAY ENCROACHMENT TCP AS DEPICTED ON SHEET T1.

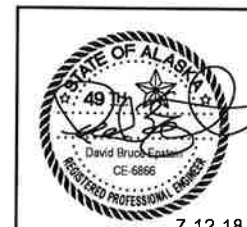


**TERMINAL BLOCK WIRING DIAGRAM**  
NTS

- NOTES:**
- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
  - COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

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

PE Date



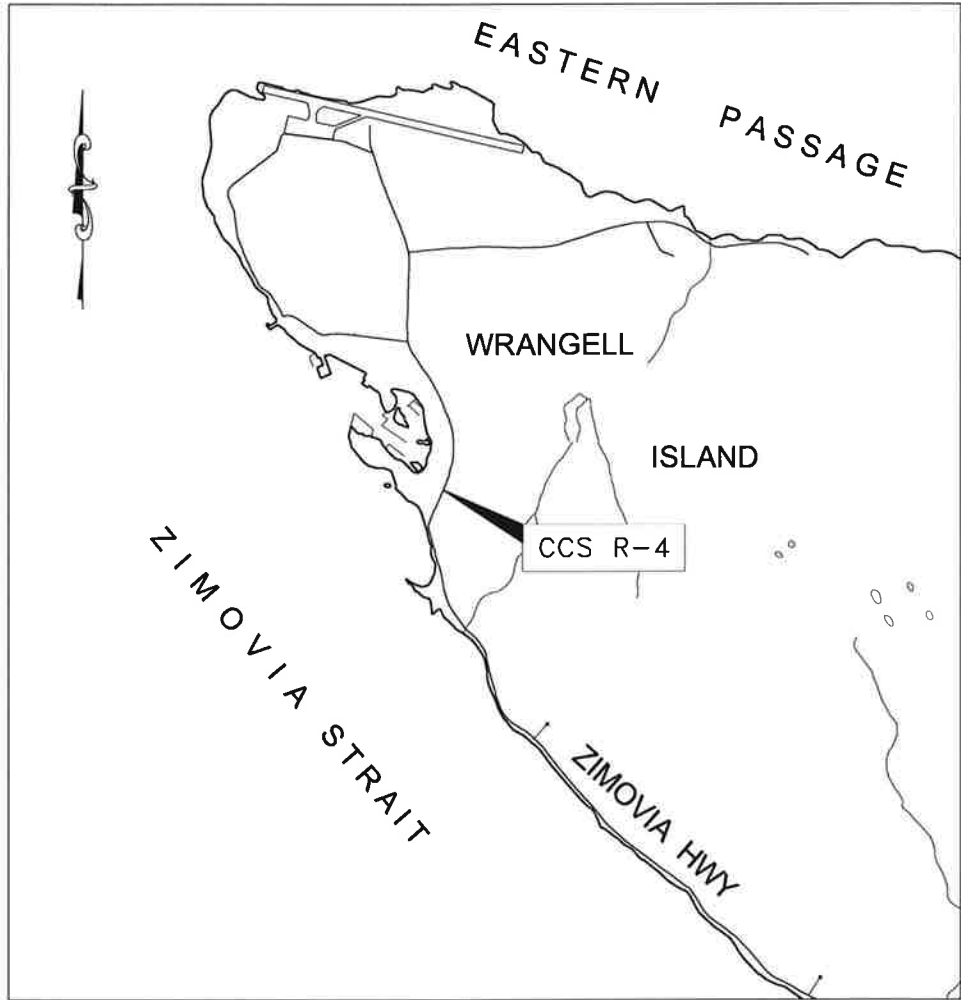
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
6880 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 485-1763

**SR HIGHWAY DATA EQUIPMENT  
ACQUISITION & INSTALLATION**  
N. TONGASS HIGHWAY  
CCS R-3 LOCATION  
KETCHIKAN, ALASKA

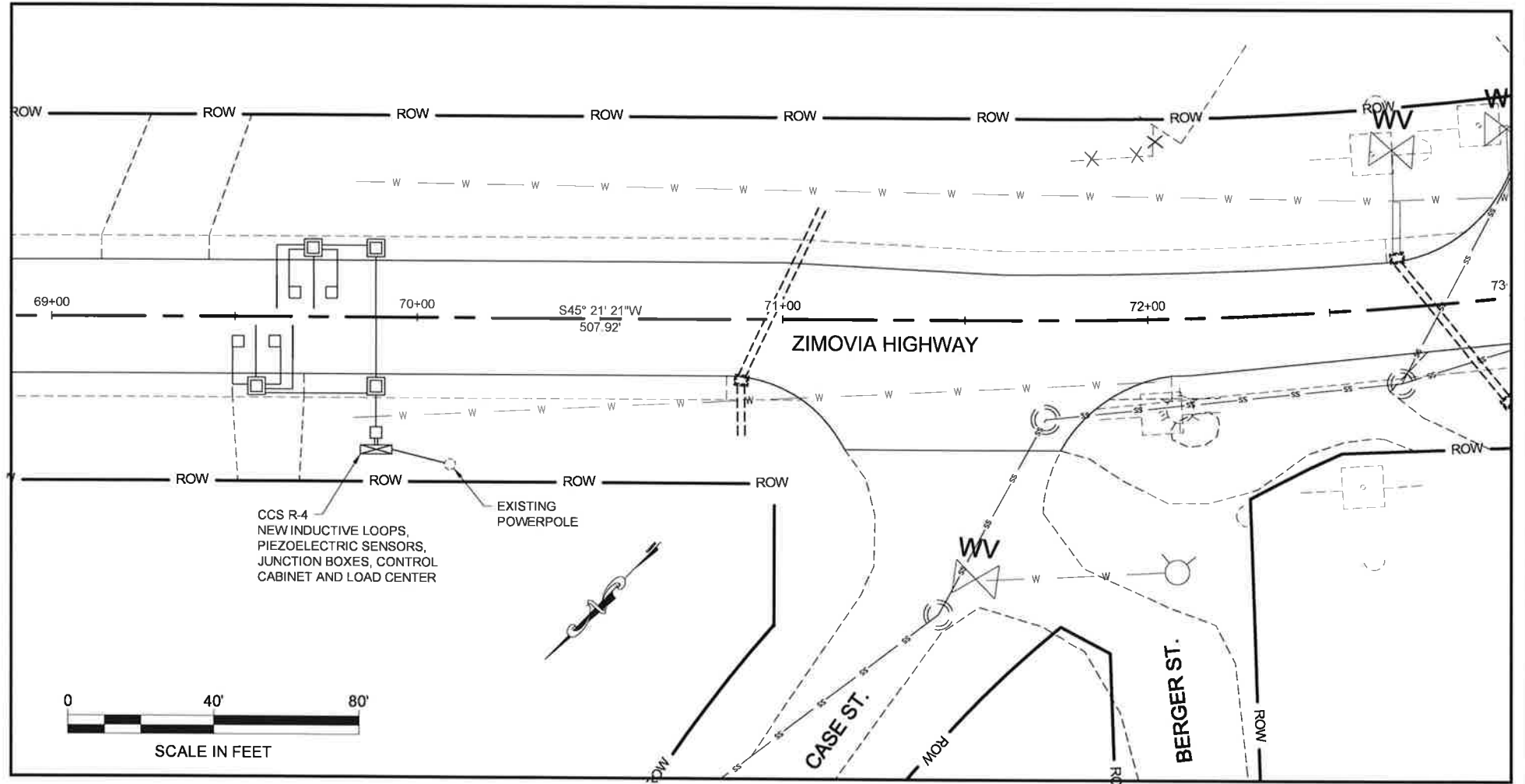
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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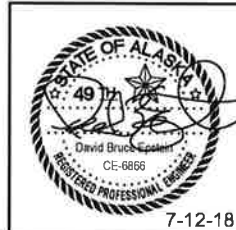


**VICINITY MAP**



**PLAN VIEW**  
NOT TO SCALE

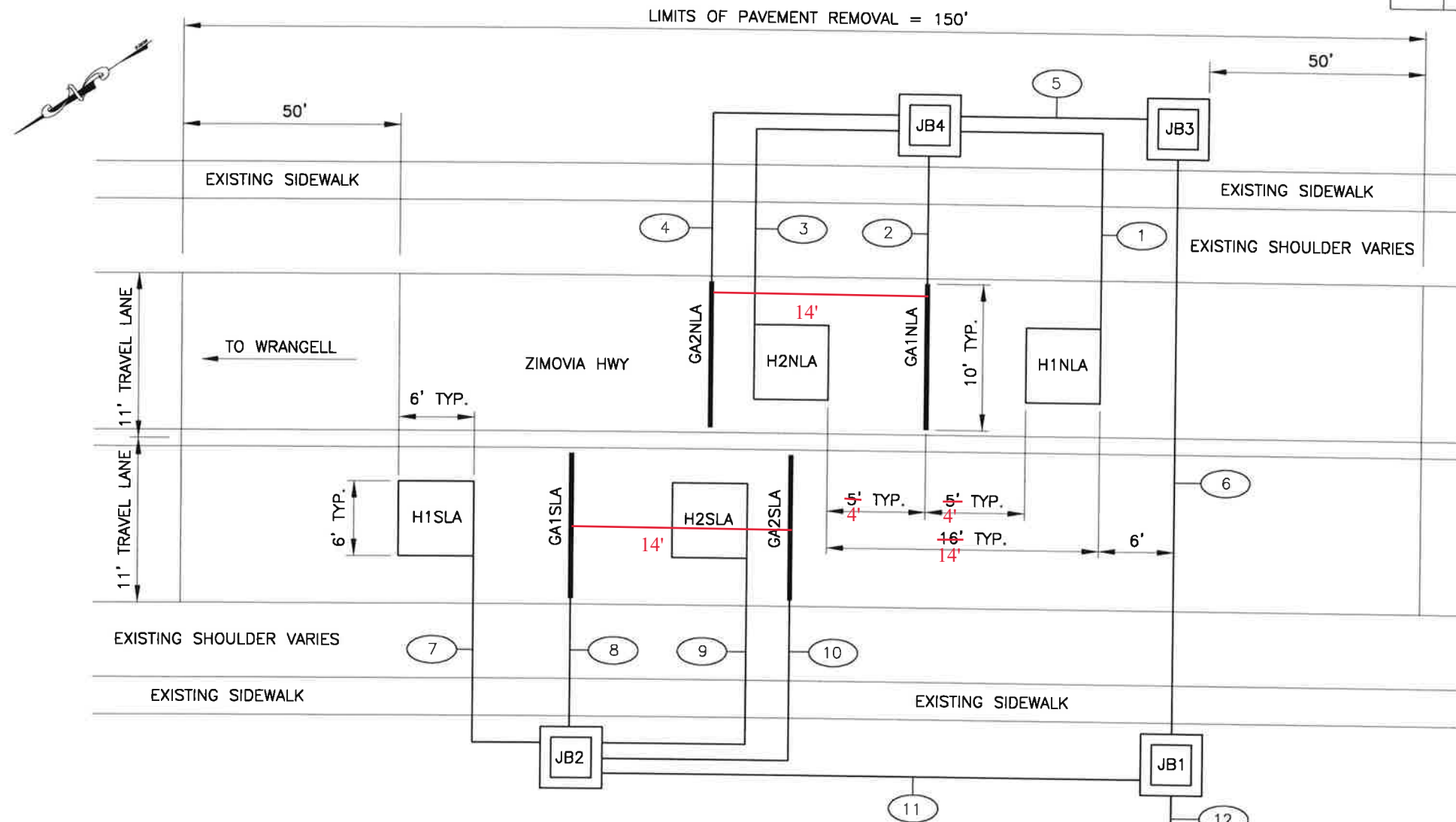
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
  
 PE \_\_\_\_\_ Date \_\_\_\_\_



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**ZIMOVI A HIGHWAY CCS R-4 LOCATION**  
**WRANGELL, ALASKA**

All J-boxes, loop detectors, and piezoelectric sensors were shifted approximately 20' to the right (towards Case St.) to avoid having JB2 in the Wrangell Public Works driveway.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH00076/0003206	2018	F4A	30



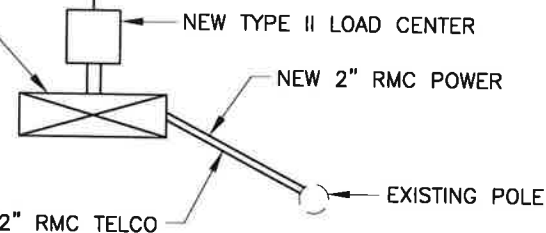
CONDUIT SCHEDULE						
TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
1	1"	NEW	H1NLA	JB4	1-1PR#14	
2	1"	NEW	GA1NLA	JB4	RG58 COAX	CO1
3	1"	NEW	H2NLA	JB4	1-1PR#14	
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5	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
6	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
7	1"	NEW	H1SLA	JB2	1-1PR#14	
8	1"	NEW	GA1SLA	JB2	RG58 COAX	CO3
9	1"	NEW	H2SLA	JB2	1-1PR#14	
10	1"	NEW	GA2SLA	JB2	RG58 COAX	CO4
11	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 CO3,CO4
12	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	R01,R02 CO1,CO4

**PLAN  
SITE DETAIL**

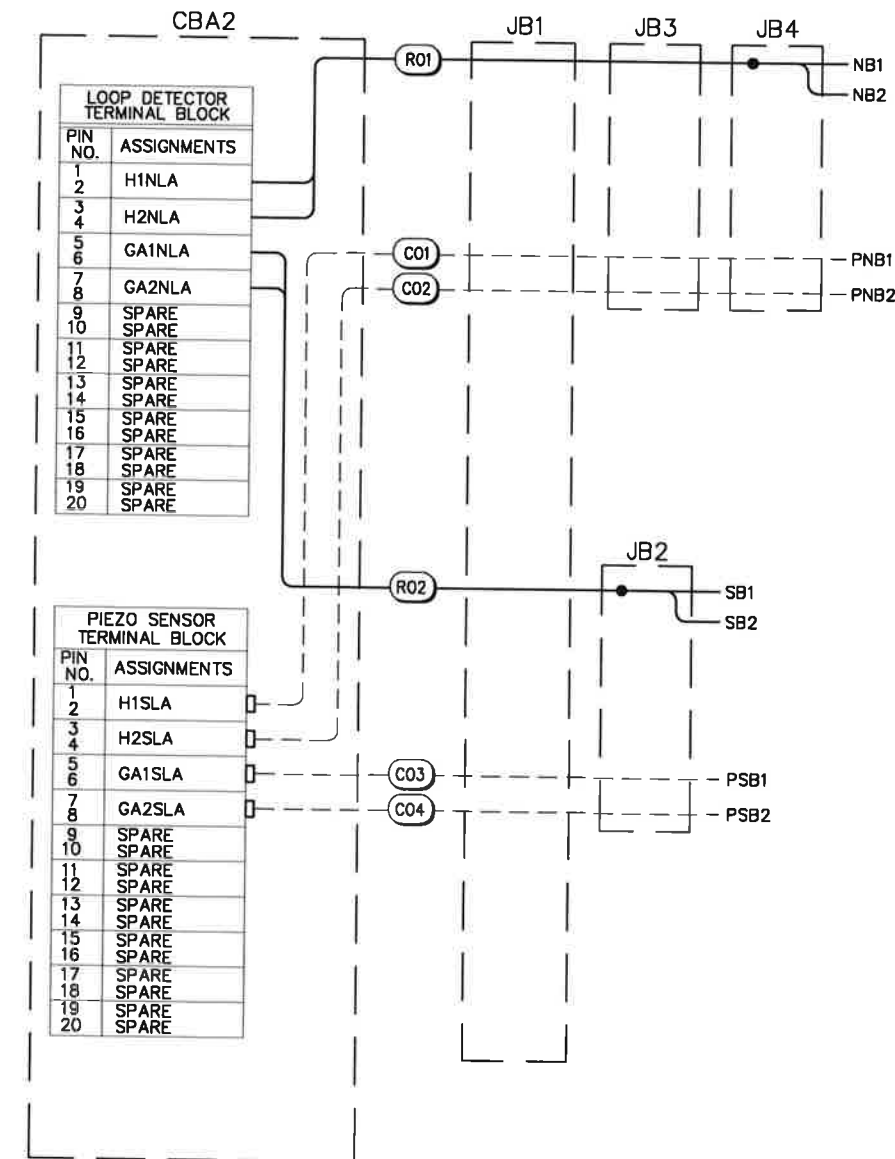
NOT TO SCALE

**NOTES:**

- REMOVE EXISTING JUNCTION BOX, TYPE 2 LOAD CENTER AND CONTROL CABINET. REPLACE WITH NEW TYPE II JUNCTION BOXES, TYPE 2 LOAD CENTER AND CBA2 CONTROL CABINET IN SAME LOCATIONS.
- INSTALL NEW TYPE II JUNCTION BOXES, LOOP DETECTORS AND PIEZOELECTRIC TRAFFIC SENSORS IN ACCORDANCE WITH SHEETS Q1 THROUGH Q3, RESPECTIVELY.
- RESTORE OBLITERATED PAVEMENT MARKINGS TO THEIR STATUS QUO ANTE CONFIGURATION.
- THIS PROJECT WILL REQUIRE SIDEWALK CLOSURE. IMPLEMENT PEDESTRIAN DETOUR WHEN SIDEWALK IS CLOSED. SEE SHEET T2 FOR DETAILS.
- REMOVE AND REPLACE SIDEWALK AND CURB/GUTTER AS NEEDED TO INSTALL LOOP DETECTOR AND PIEZO TAILS. CLOSE ONLY SIDEWALK AT A TIME.
- CENTER PIEZO'S IN TRAVEL LANE.



Existing load center is actually the load center for the street lighting and cannot be removed.



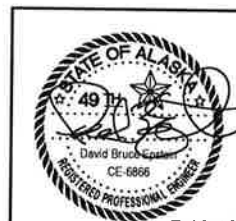
**NOTES:**

- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
- COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

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

PE

Date



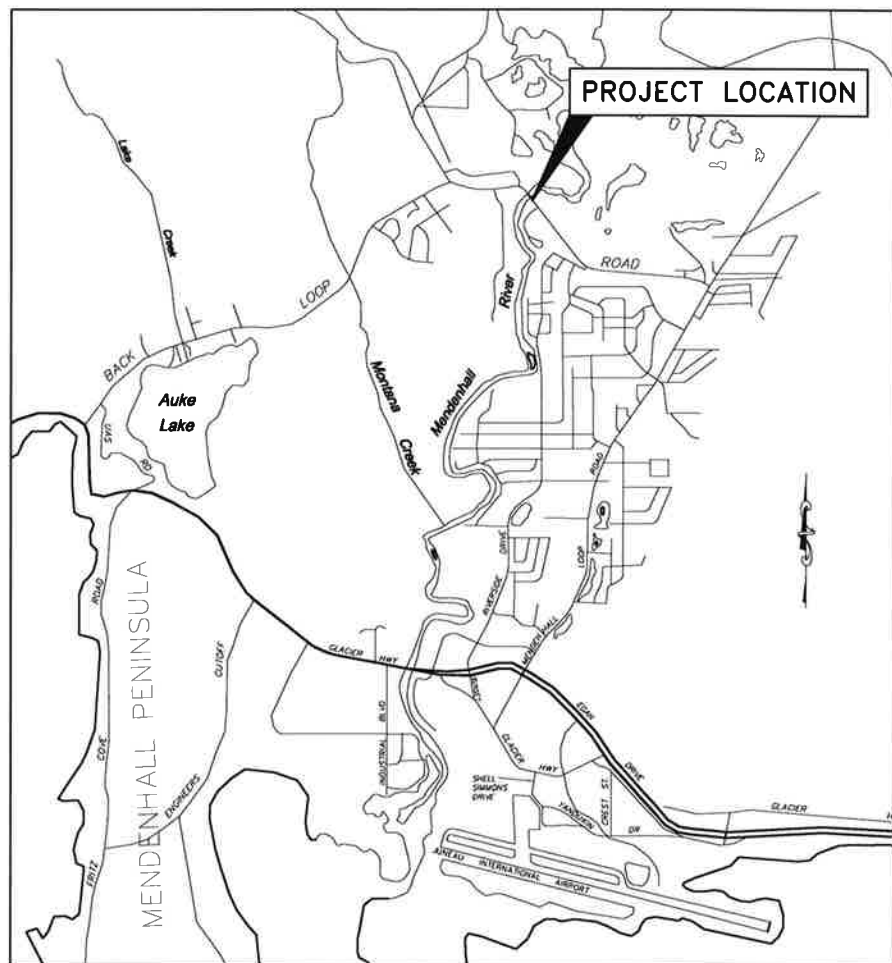
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
ZIMOVIYA HIGHWAY  
CCS R-4 LOCATION  
WRANGELL, ALASKA

7-12-18

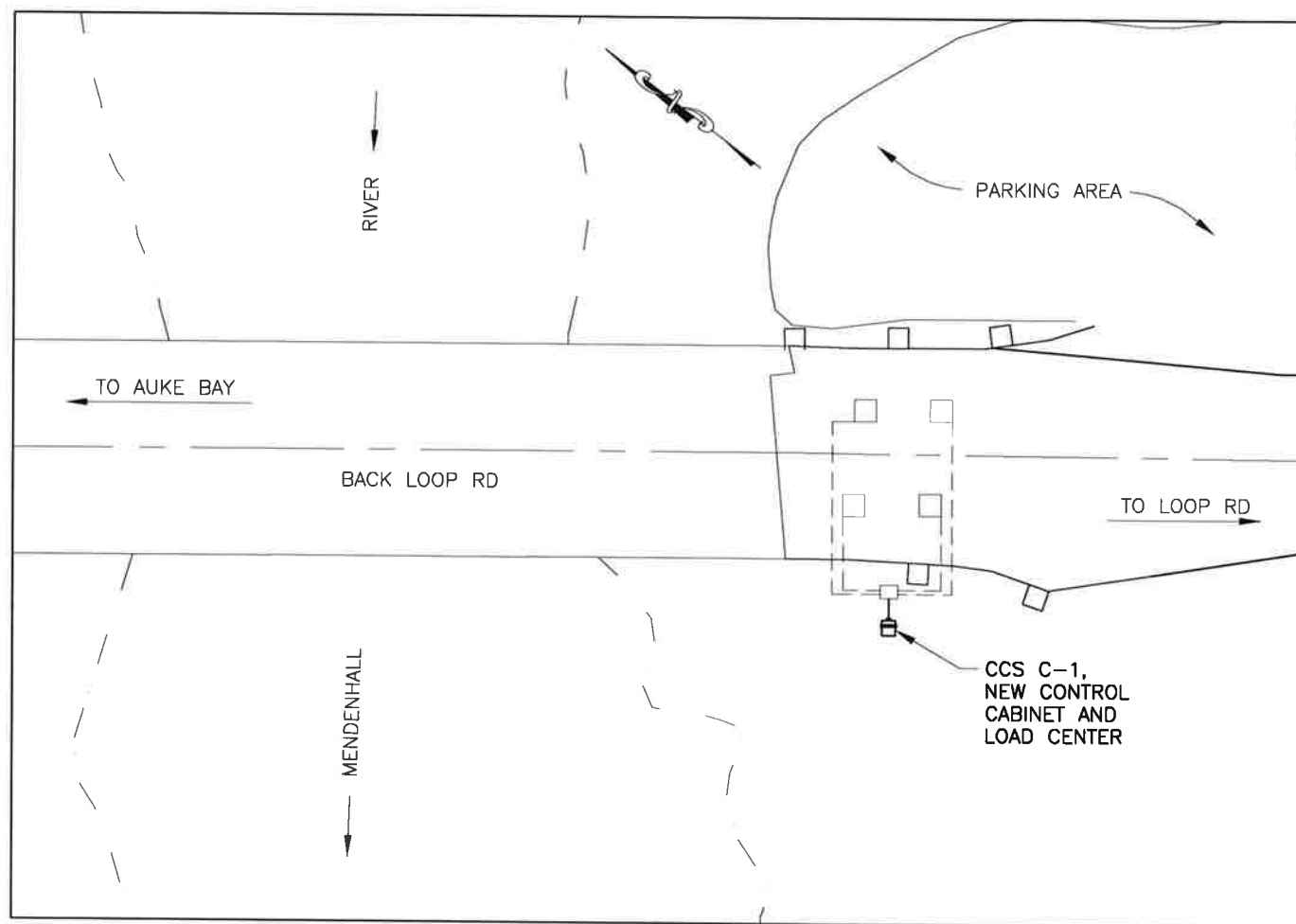
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F5	30

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VICINITY MAP



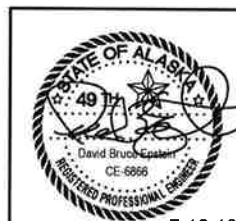
LOCATION MAP

NOT TO SCALE

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

PE

Date

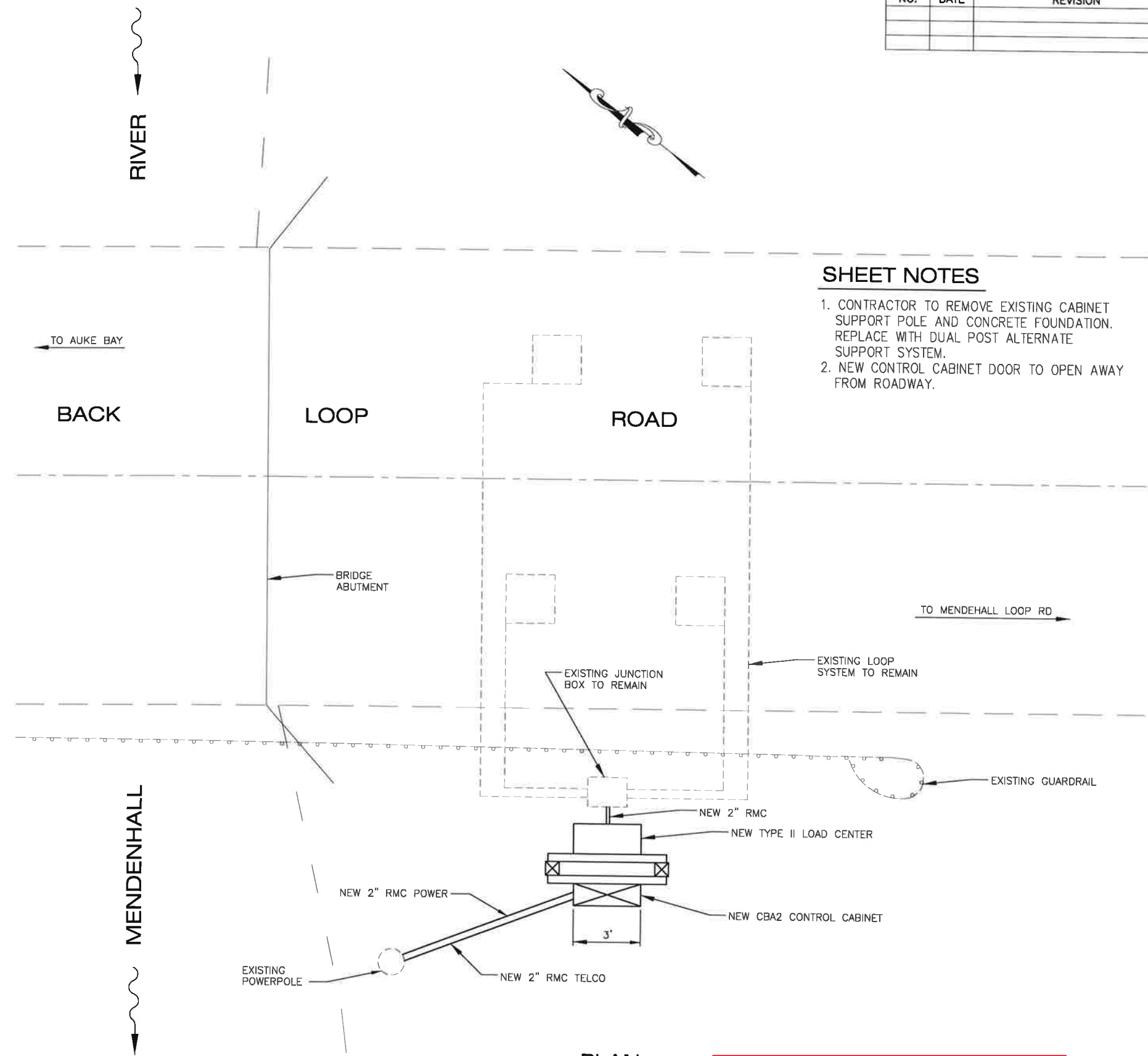


7-12-18

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 8860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763  
**SR HIGHWAY DATA EQUIPMENT  
 ACQUISITION & INSTALLATION**  
**CCS C-1 LOCATION  
 BACK LOOP ROAD  
 JUNEAU, ALASKA**

FILE Q:\SEA\SFH00076\PlanSet\SFH00076\_F5A.dwg DATE 5/1/2018 9:48 LAYOUT MODEL DESIGNED DE CHECKED DE DRAFTED DS

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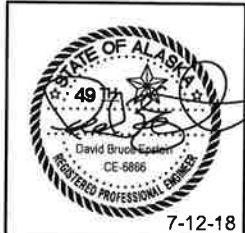
**SHEET NOTES**

1. CONTRACTOR TO REMOVE EXISTING CABINET SUPPORT POLE AND CONCRETE FOUNDATION. REPLACE WITH DUAL POST ALTERNATE SUPPORT SYSTEM.
2. NEW CONTROL CABINET DOOR TO OPEN AWAY FROM ROADWAY.

**PLAN**  
**SITE DETAIL**  
N.T.S.

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

PE \_\_\_\_\_ Date \_\_\_\_\_

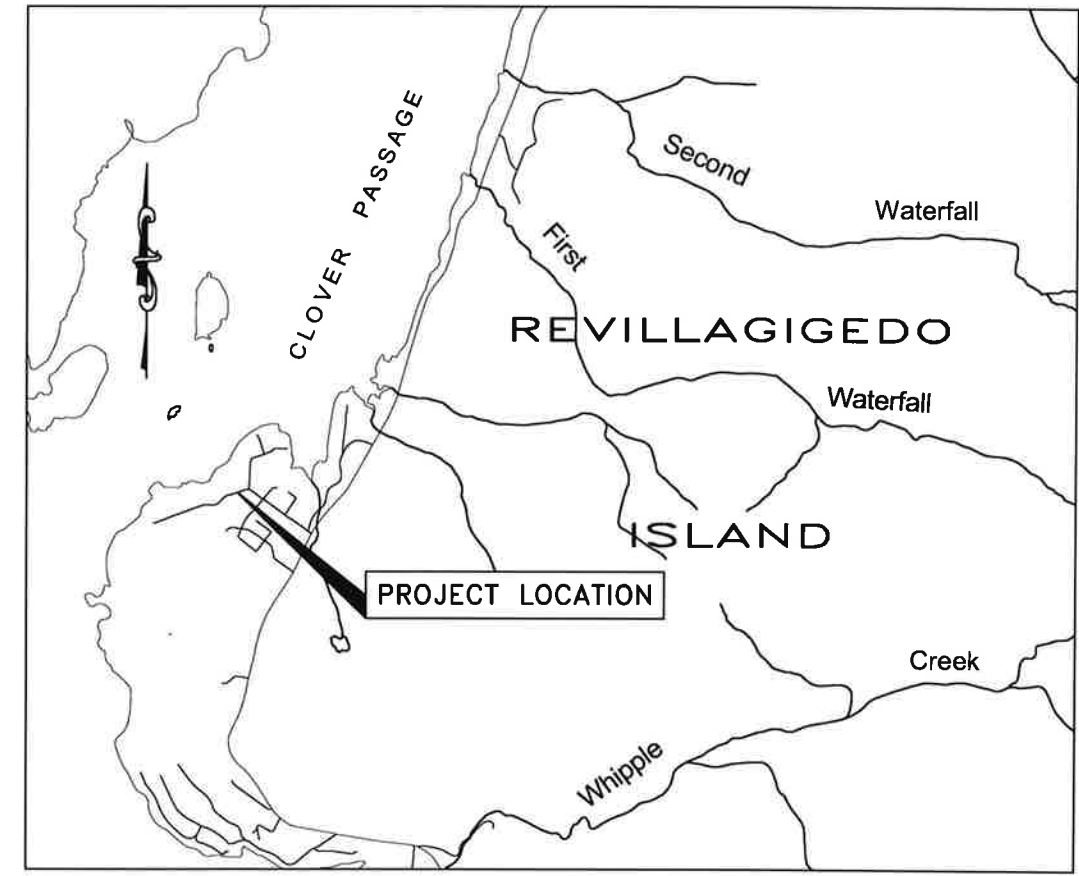


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6880 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 485-1763

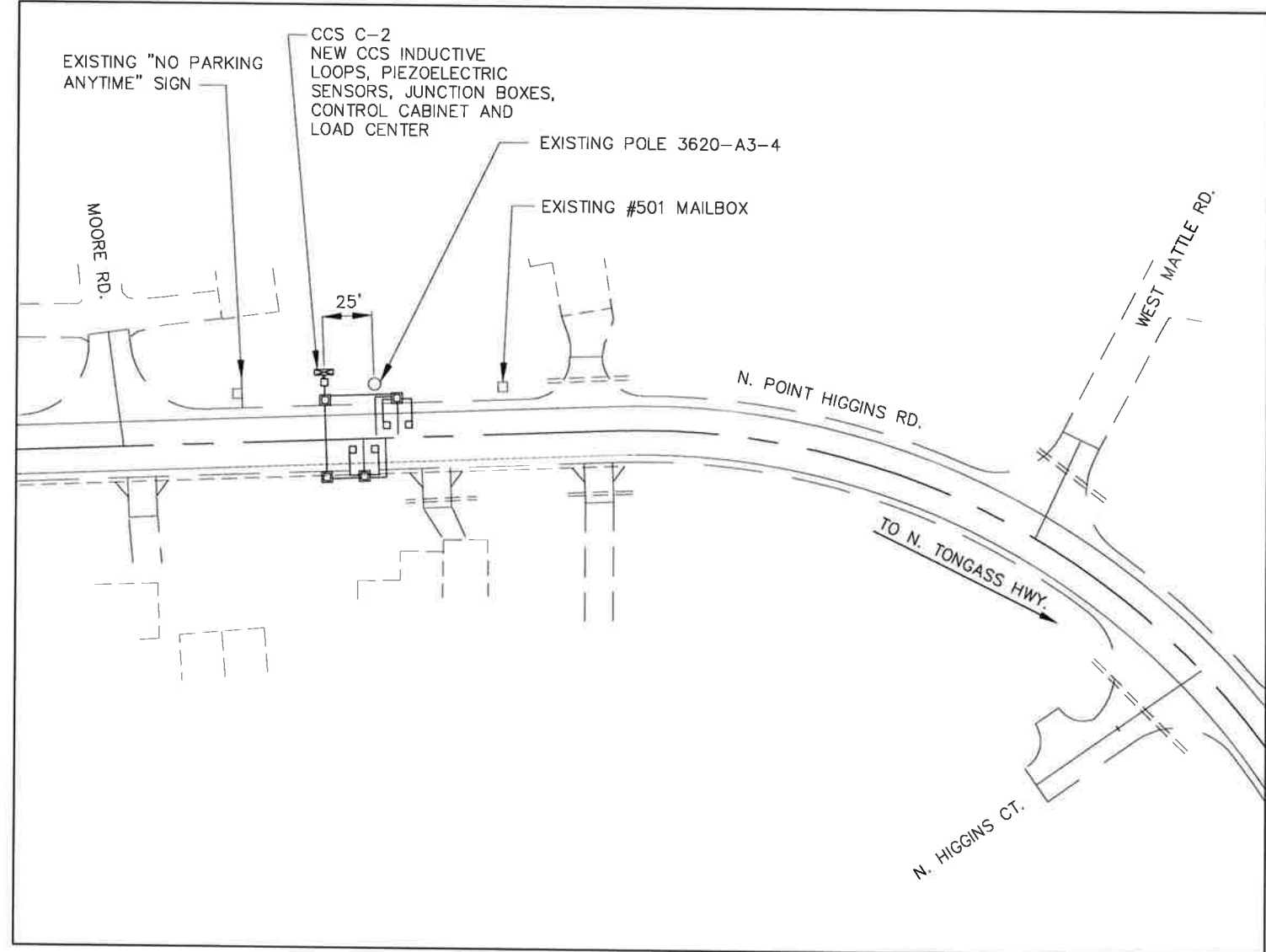
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**CCS C-1 SITE DETAIL & WIRING DETAILS**  
**BACK LOOP RD. JUNEAU, ALASKA**

7-12-18

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHXY00076/0003206	2018	F6	30



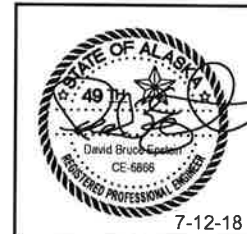
VICINITY MAP  
KTN. N. POINT HIGGINS RD.



LOCATION MAP  
NOT TO SCALE

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

PE \_\_\_\_\_ Date \_\_\_\_\_



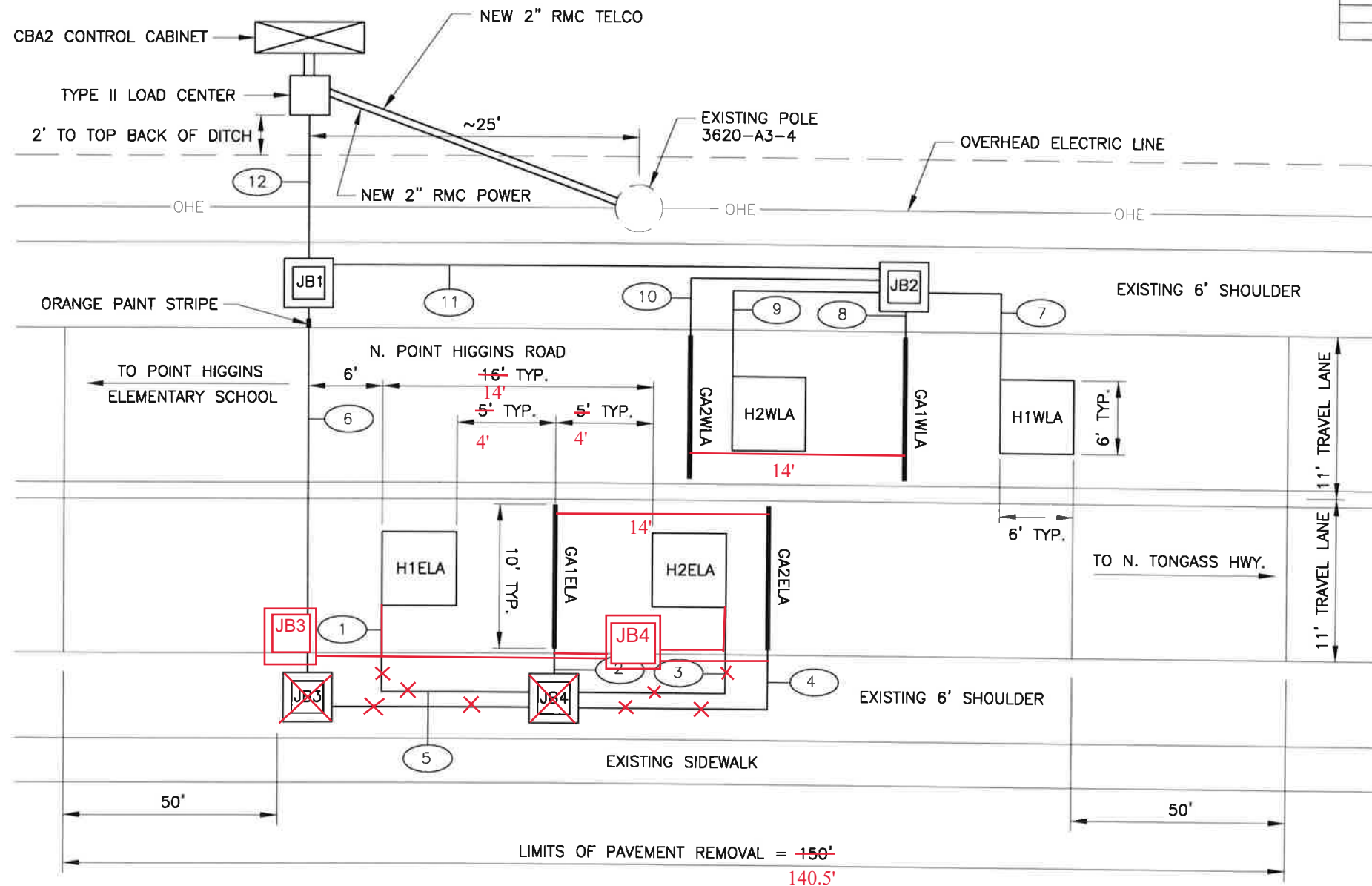
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
8860 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763

SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION  
CCS C-2 LOCATION  
N. PT. HIGGINS ROAD  
KETCHIKAN, ALASKA

7-12-18

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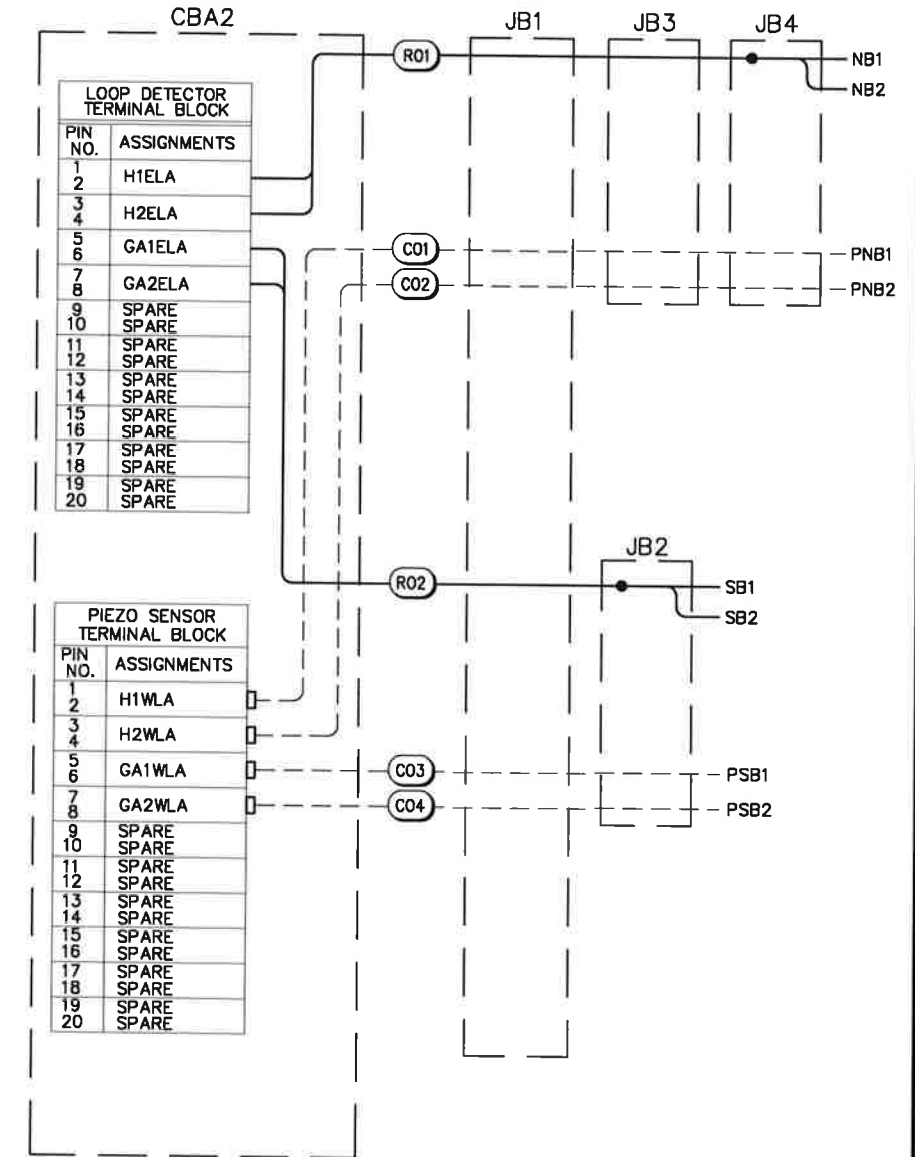
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00076/0003206	2018	F6A	30



**PLAN  
SITE DETAIL**  
NOT TO SCALE

TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
1	1"	NEW	H1ELA	JB4	1-1PR#14	
2	1"	NEW	GA1ELA	JB4	RG58 COAX	CO1
3	1"	NEW	H2ELA	JB4	1-1PR#14	
4	1"	NEW	GA2ELA	JB4	RG58 COAX	CO2
5	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
6	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 CO1,CO2
7	1"	NEW	H1WLA	JB2	1-1PR#14	
8	1"	NEW	GA1WLA	JB2	RG58 COAX	CO3
9	1"	NEW	H2WLA	JB2	1-1PR#14	
10	1"	NEW	GA2WLA	JB2	RG58 COAX	CO4
11	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 CO3,CO4
12	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	R01,R02 CO1,CO4

- NOTE:**
- RIGHT-OF-WAY IS 50' EACH SIDE OF CENTERLINE.
  - NEW CONTROL CABINET DOOR TO OPEN AWAY FROM ROADWAY.
  - SEE SHEETS Q1, Q2 AND Q3 FOR INSTALLATION DETAILS.
  - CENTER PIEZO'S IN TRAVEL LANE.



**TERMINAL BLOCK WIRING DIAGRAM**

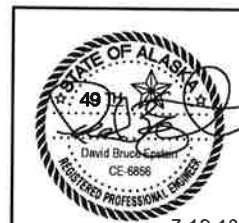
NTS

- NOTES:**
- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
  - COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

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

PE

Date

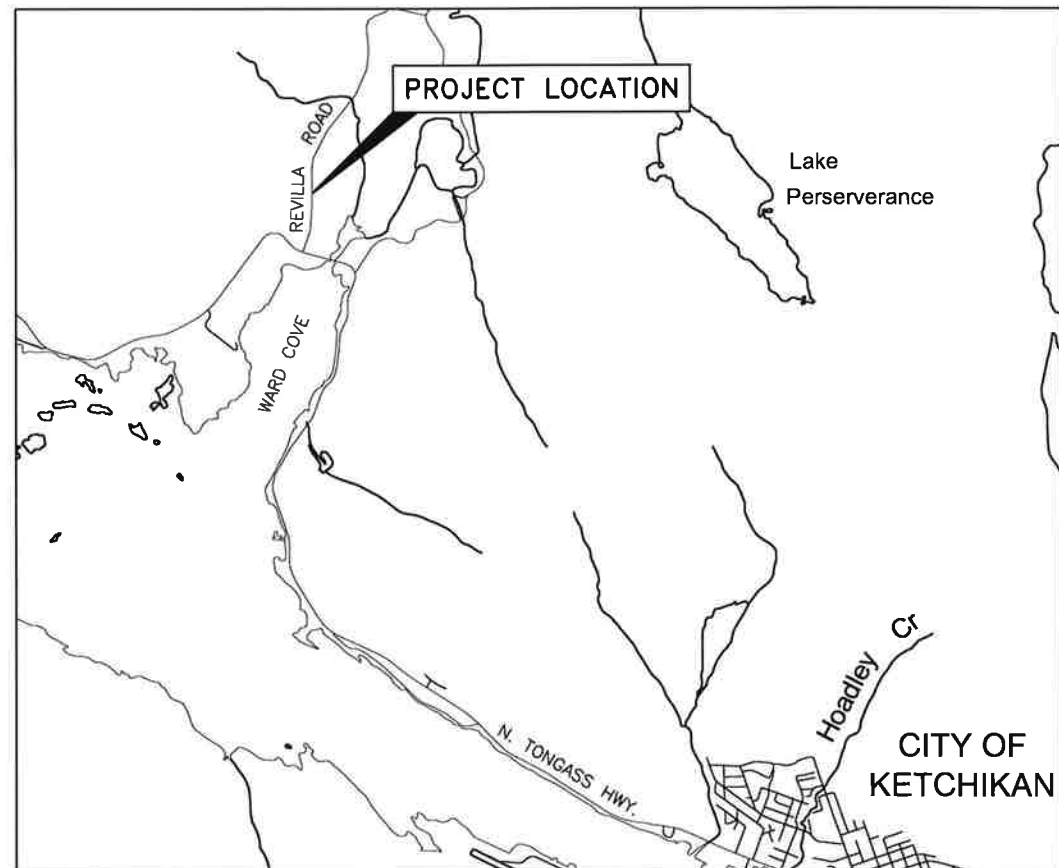


7-12-18

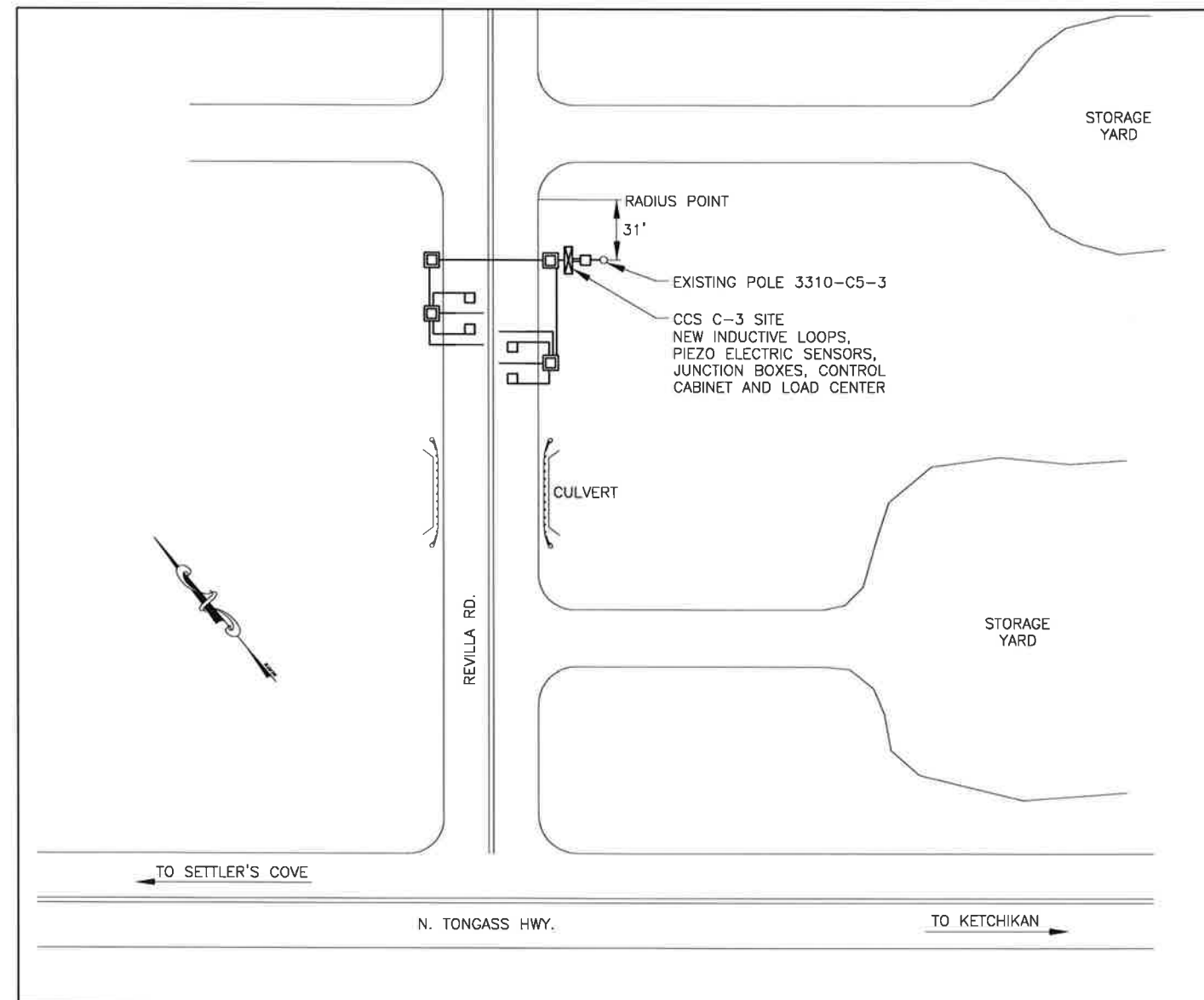
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6880 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1783  
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
CCS C-2 LOCATION  
N. PT. HIGGINS ROAD  
KETCHIKAN, ALASKA

FILE Q:\SEA\SFHWY00076\Plan\set\SFHWY00076\_F6A.dwg DATE 5/2/2018 11:16 LAYOUT F6A DESIGNED DE CHECKED DE DRAFTED DS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F7	30



VICINITY MAP



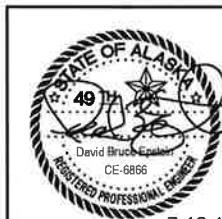
LOCATION MAP

NOT TO SCALE

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

PE

Date



7-12-18

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

SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION  
CCS C-3 LOCATION  
REVILLA ROAD  
KETCHIKAN, ALASKA

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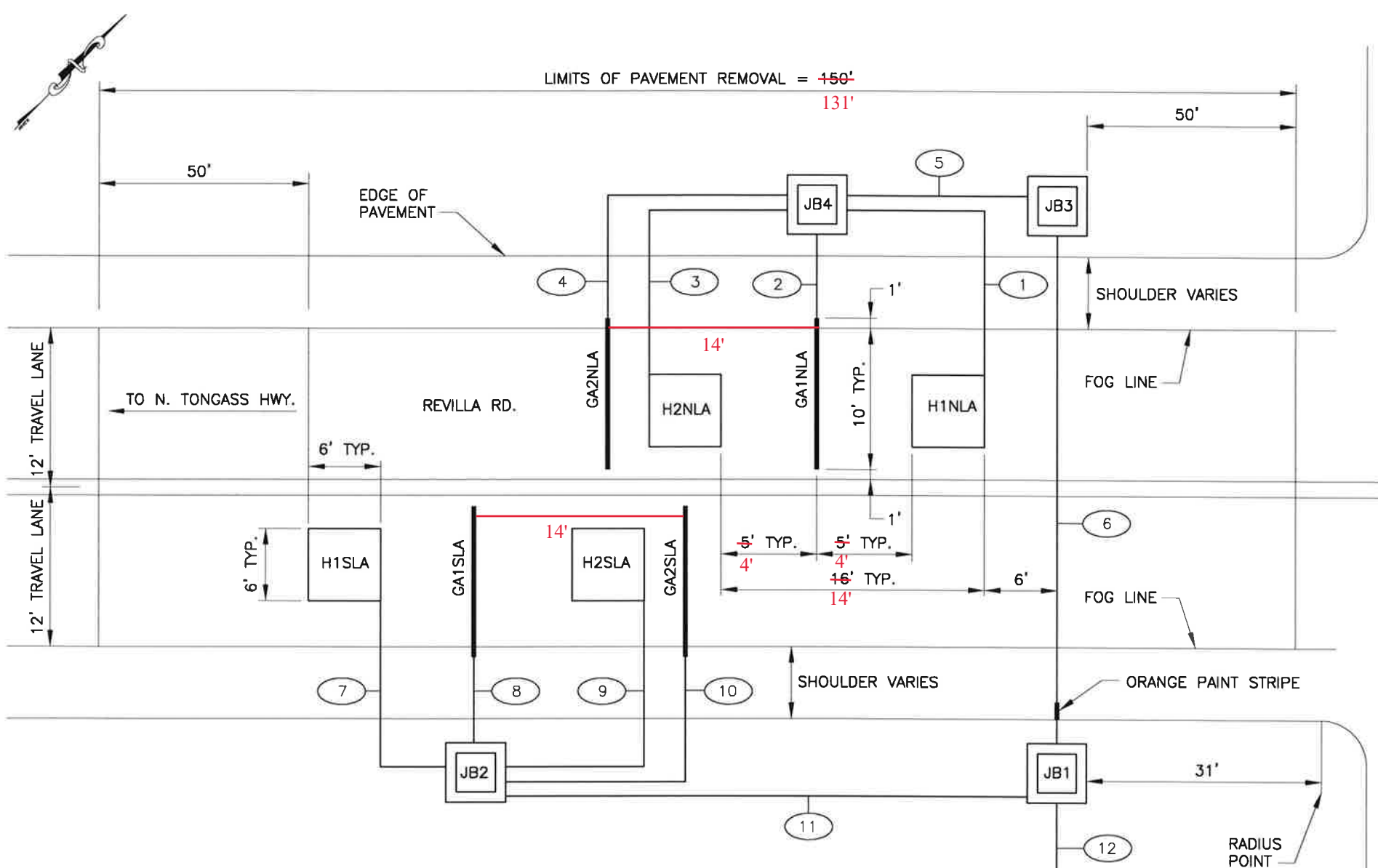
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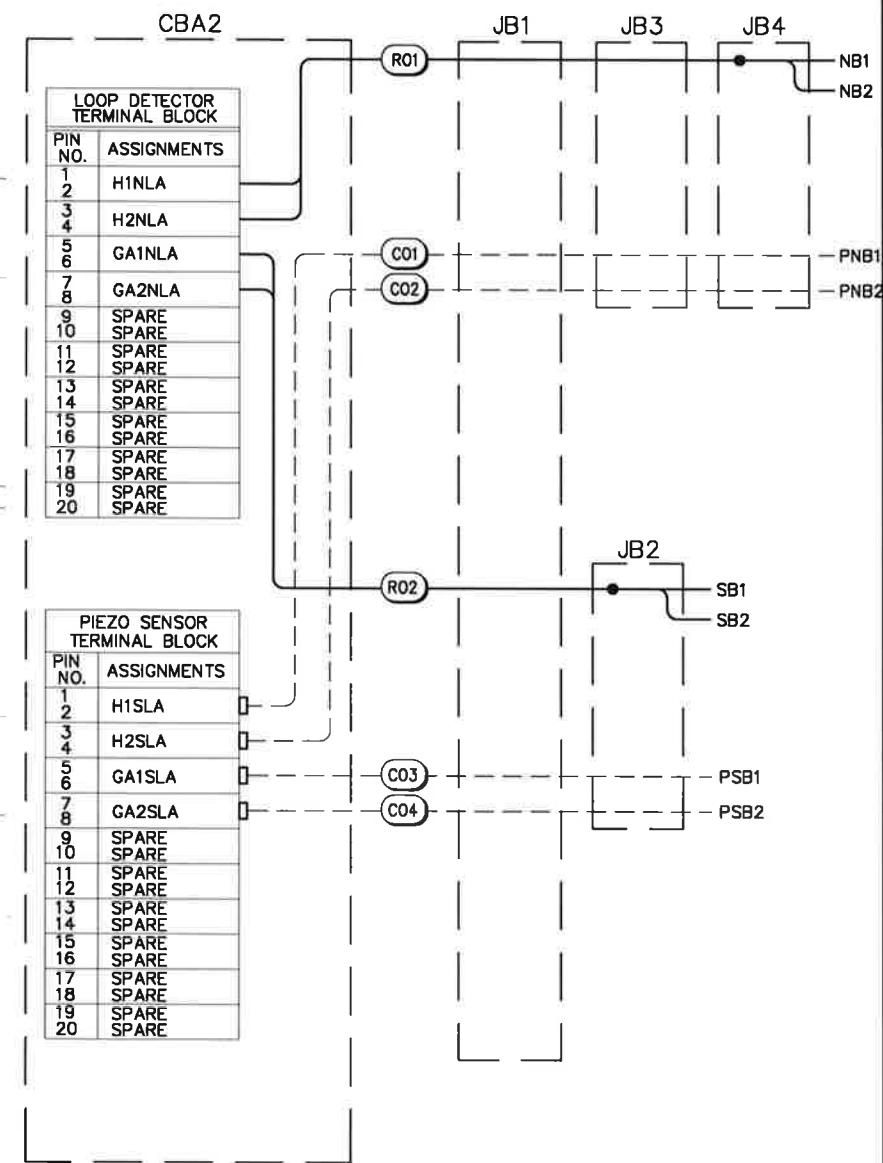
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	F7A	30



TAG	CONDUIT SIZE (RMC)	NEW/ EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
1	1"	NEW	H1NLA	JB4	1-1PR#14	
2	1"	NEW	GA1NLA	JB4	RG58 COAX	CO1
3	1"	NEW	H2NLA	JB4	1-1PR#14	
4	1"	NEW	GA2NLA	JB4	RG58 COAX	CO2
5	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	R01 C01,C02
6	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	R01 C01,C02
7	1"	NEW	H1SLA	JB2	1-1PR#14	
8	1"	NEW	GA1SLA	JB2	RG58 COAX	CO3
9	1"	NEW	H2SLA	JB2	1-1PR#14	
10	1"	NEW	GA2SLA	JB2	RG58 COAX	CO4
11	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	R02 C03,C04
12	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	R01,R02 C01,C04

**PLAN  
SITE DETAIL**  
NOT TO SCALE

- NOTES:**
- CENTERLINE OF SITE IS NOTED ON THE PAVEMENT BY AN ORANGE PAINT STRIPE.
  - LOCATE JB1 3' OFF EDGE OF PAVEMENT.
  - LOCATE LOAD CENTER AND CONTROL CABINET SUPPORT POSTS 5' BEHIND JB1.
  - NEW CONTROL CABINET DOOR TO OPEN AWAY FROM ROADWAY.
  - SEE SHEETS Q1, Q2 AND Q3 FOR INSTALLATION DETAILS.
  - RIGHT-OF-WAY IS 80 FT. EACH SIDE OF CENTERLINE.

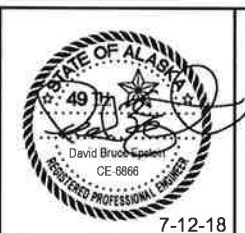


**TERMINAL BLOCK WIRING DIAGRAM**  
NTS

- NOTES:**
- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
  - COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



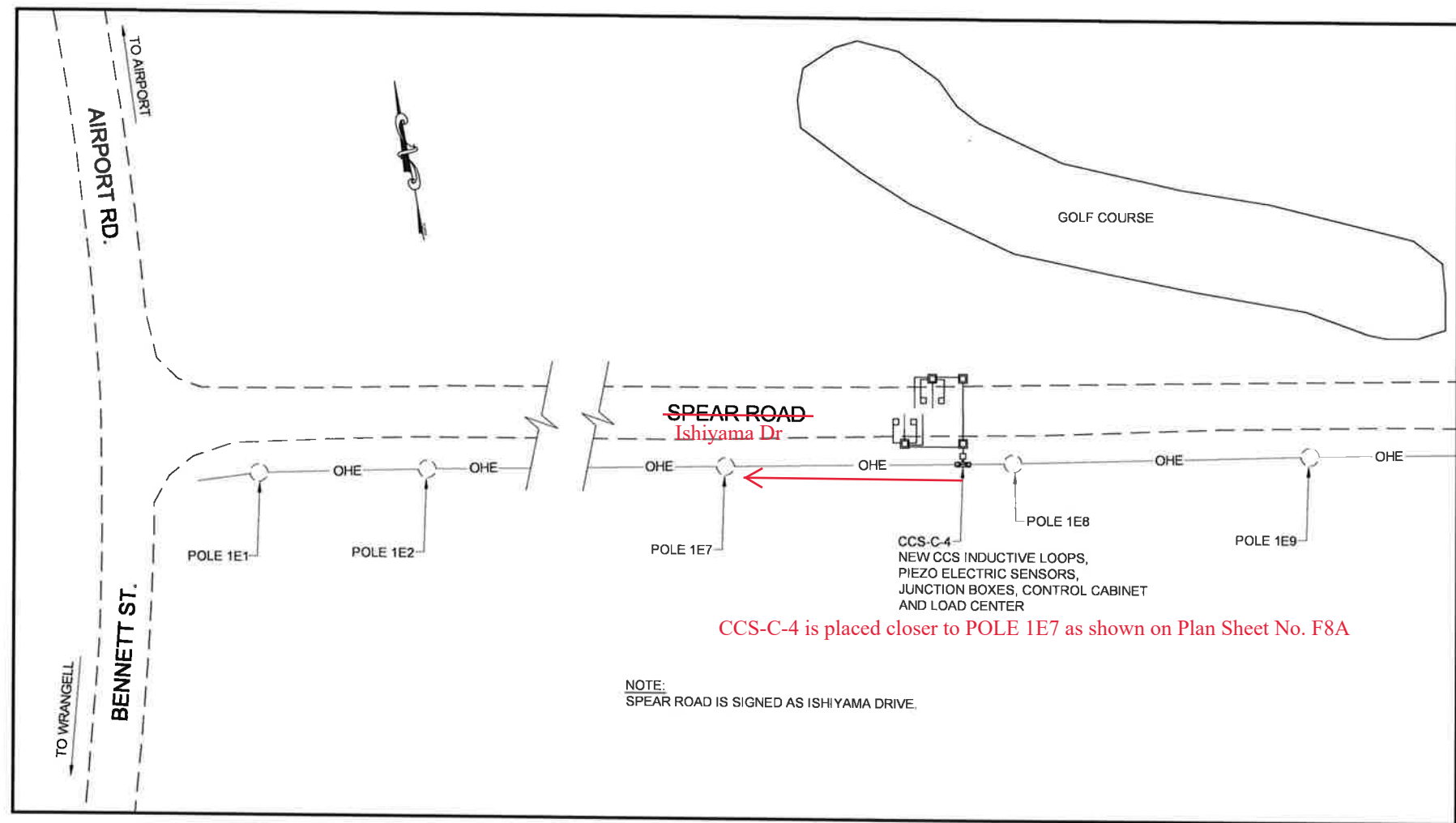
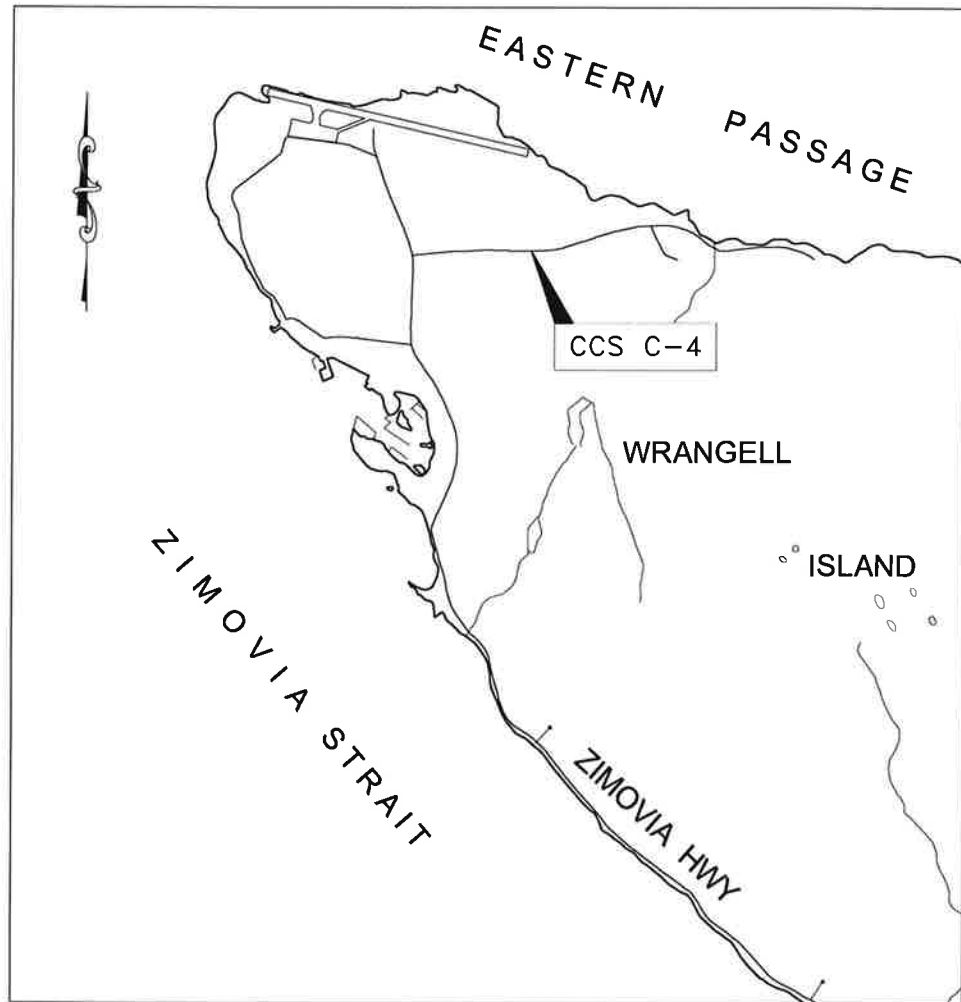
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763

**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
CCS C-3 LOCATION  
REVILLA ROAD  
KETCHIKAN, ALASKA

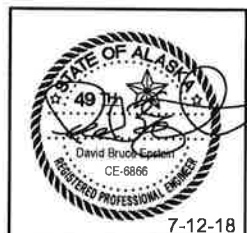
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
  
 PE \_\_\_\_\_ Date \_\_\_\_\_

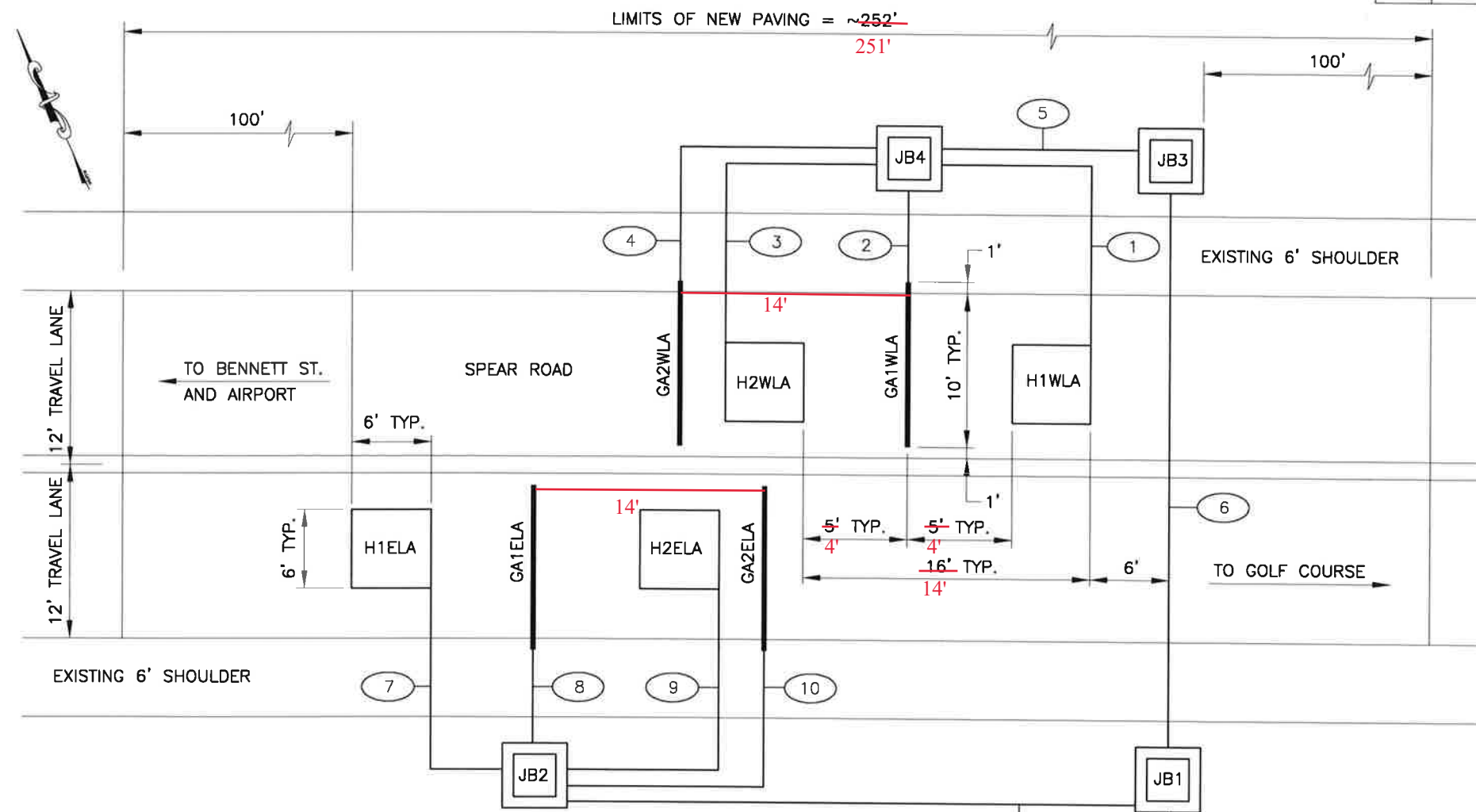


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763

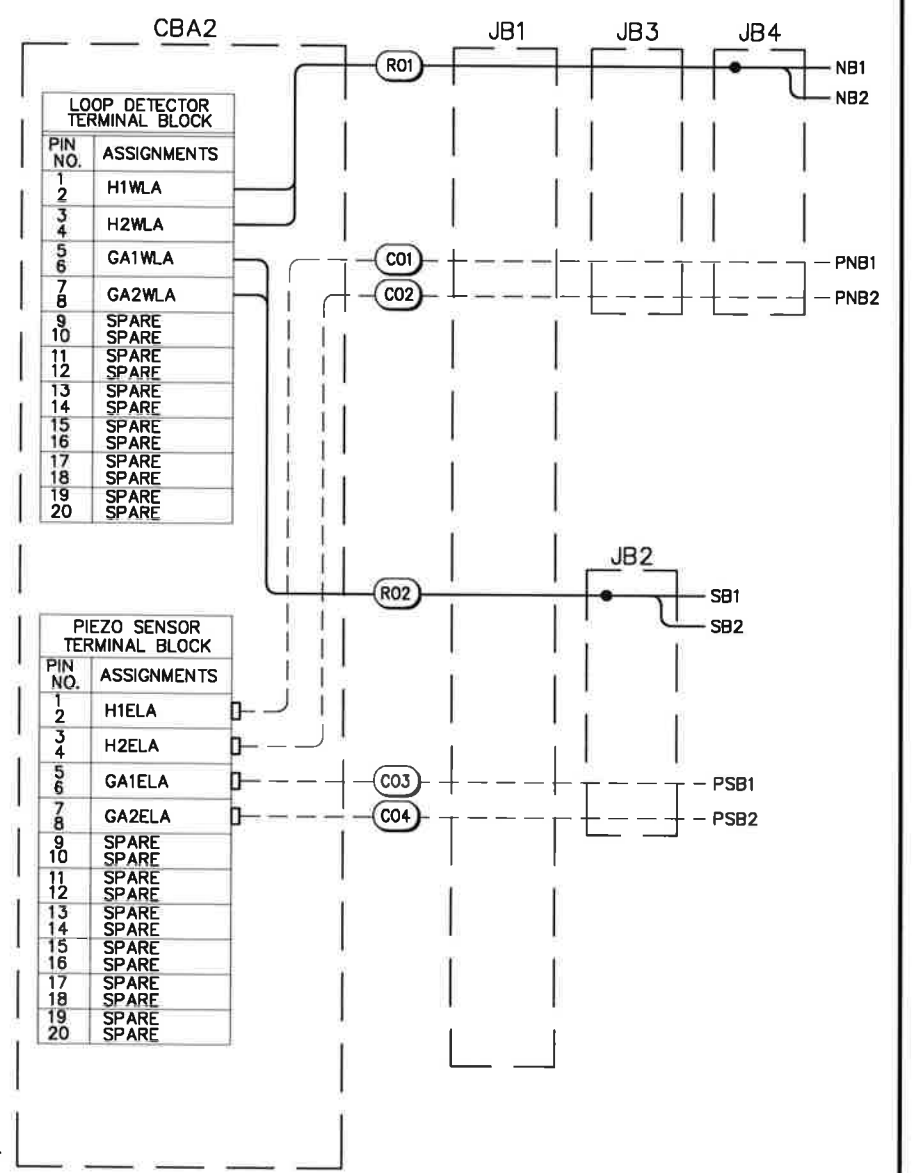
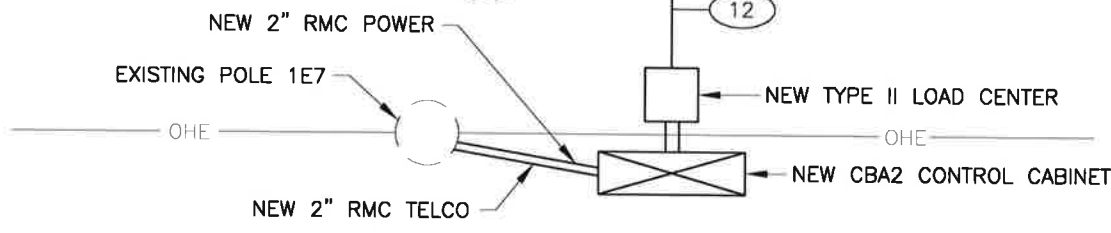
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
**SPEAR ROAD**  
**CCS C-4 LOCATION**  
**WRANGELL, ALASKA**

7-12-18

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHwy00076/0003206	2018	F8A	30



CONDUIT SCHEDULE						
TAG	CONDUIT SIZE (RMC)	NEW/EXISTING	FROM	TO	CABLE	
					TYPE	NUMBER
1	1"	NEW	H1WLA	JB4	1-1PR#14	
2	1"	NEW	GA1WLA	JB4	RG58 COAX	CO1
3	1"	NEW	H2WLA	JB4	1-1PR#14	
4	1"	NEW	GA2WLA	JB4	RG58 COAX	CO2
5	2"	NEW	JB4	JB3	1-3PR#18 2-RG58 COAX	RO1 CO1,CO2
6	2"	NEW	JB3	JB1	1-3PR#18 2-RG58 COAX	RO1 CO1,CO2
7	1"	NEW	H1ELA	JB2	1-1PR#14	
8	1"	NEW	GA1ELA	JB2	RG58 COAX	CO3
9	1"	NEW	H2ELA	JB2	1-1PR#14	
10	1"	NEW	GA2ELA	JB2	RG58 COAX	CO4
11	2"	NEW	JB2	JB1	1-3PR#18 2-RG58 COAX	RO2 CO3,CO4
12	2"	NEW	JB1	CBA2	2-3PR#18 4-RG58 COAX	RO1,RO2 CO1,CO4



**PLAN  
SITE DETAIL**  
NOT TO SCALE

- NOTE:**
- RIGHT-OF-WAY IS 100 FT. EACH SIDE OF CENTERLINE.
  - CONTRACTOR TO REMOVE EXISTING CABINET SUPPORT POLE AND CONCRETE FOUNDATION. REPLACE WITH DUAL POST ALTERNATE SUPPORT SYSTEM.
  - NEW CONTROL CABINET DOOR TO OPEN AWAY FROM ROADWAY.

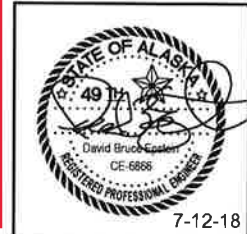
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE \_\_\_\_\_ Date \_\_\_\_\_

**TERMINAL BLOCK WIRING DIAGRAM**  
NTS

**NOTES:**

- SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON SHEET Q2.
- COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.



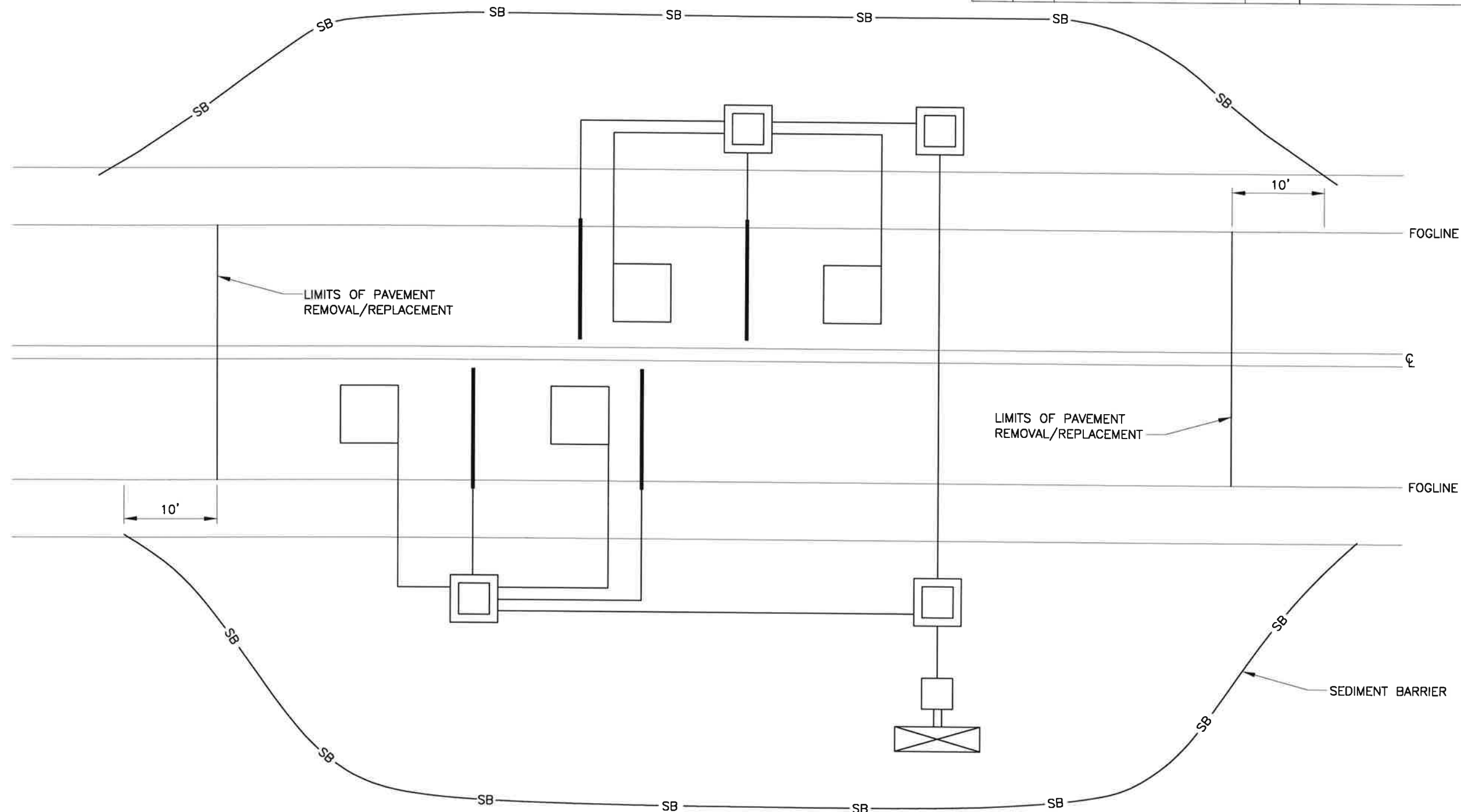
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
6880 GLACIER HIGHWAY, JUNEAU, AK 99811  
(907) 465-1763

**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**  
Ishiyama Dr - ~~SPEAR ROAD~~  
CCS C-4 LOCATION  
WRANGELL, ALASKA

7-12-18

FILE Q:\SEA\SFHwy00076\PlanSet\SFHwy00076\_F8A.dwg DATE 5/8/2018 10:19 LAYOUT FBA DESIGNED DE CHECKED DE DRAFTED DS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	P1	30



**EROSION AND SEDIMENT CONTROL PLAN, TYPICAL**

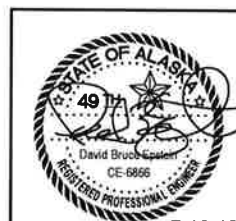
NOT TO SCALE

**NOTES:**

1. SEDIMENT BARRIER SHALL BE CONSTRUCTED TO ENVELOP CONSTRUCTION ACTIVITIES CCS SITE, INCLUDING TRENCHING FOR POWER, TELECOMMUNICATIONS AND CONTROL AND LIMITS OF PAVEMENT DISTURBANCE.
2. PROVIDE TEMPORARY OR PERMANENT STABILIZATION FOR ALL DISTURBED SOILS AND ERODIBLE STOCKPILES AT THE END OF EACH DAILY SHIFT OR PROVIDE EROSION AND OR SEDIMENT CONTROL BMP'S.
3. FOLLOW THE PROVISIONS OF ALASKA DOT&PF BMP GUIDE FOR EROSION AND SEDIMENT CONTROL TO CONSTRUCT AND MAINTAIN SEDIMENT BARRIER.
4. INSTALL EROSION AND SEDIMENT CONTROL DEVICES BEFORE BEGINNING EARTH DISTURBING ACTIVITIES. MAINTAIN AND MONITOR DAILY.
5. PREVENT OFF-SITE TRACKING OF SEDIMENT BY WORKERS, VEHICLES AND/OR EQUIPMENT. REGULARLY SWEEP PAVEMENT IN WORK AREAS AND EMPLOY GOOD HOUSEKEEPING PRACTICES.
6. COMPLY WITH ALL NECESSARY PERMIT CONDITIONS AND ENVIRONMENTAL COMMITMENTS AS OUTLINED IN THE CONSTRUCTION DOCUMENTS.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



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

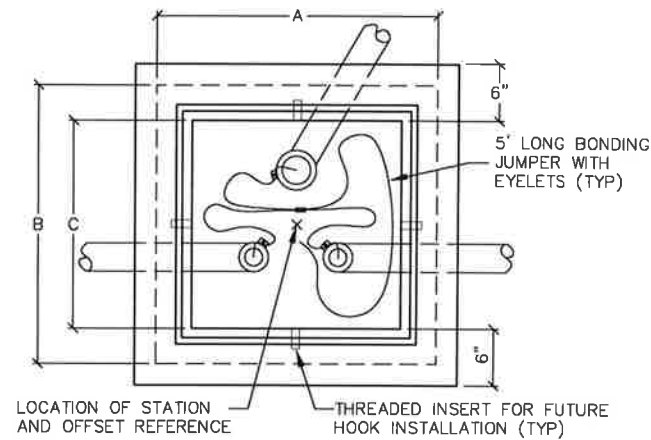
**SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION**

**EROSION AND SEDIMENT CONTROL PLAN**

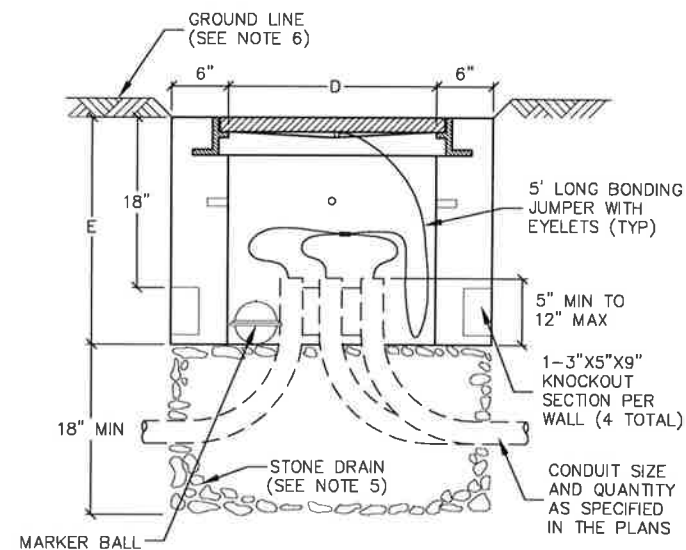
7-12-18

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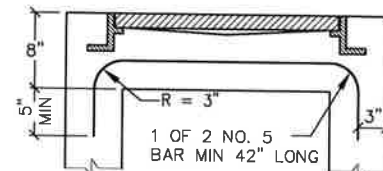
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00076/0003206	2018	Q1	30



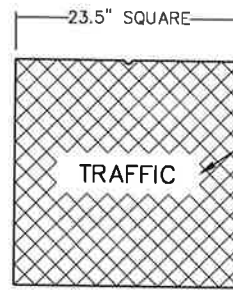
PLAN



TYPE II JUNCTION BOX ELEVATION



REINFORCEMENT DETAIL



LID FOR TYPE II J-BOXES

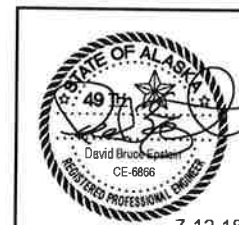
J-BOX TYPE	DIMENSIONS				
	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)
II	29 1/2"	29 1/2"	22"	22"	24"

NOTES

- FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
- CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. CENTER REBAR AT 2 INCH INTERVALS ON ALL FOUR SIDES OF JUNCTION BOX. SYNTHETIC STRUCTURAL FIBER-REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
- FURNISH LIDS WITH THE WORD "TRAFFIC" INSCRIBED INTO THEM.
- UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703-2.10.
- SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:  
 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES  
 1/4" IN PEDESTRIAN FACILITIES  
 2" IN ALL OTHER AREAS
- BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660-3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH BRASS OR STAINLESS STEEL HARDWARE.
- INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
- INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660-3.04.
- PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4-INCHES TALL BY 5-INCHES WIDE. THE WIRE STAFF SHALL BE 21-INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.

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

PE \_\_\_\_\_ Date \_\_\_\_\_



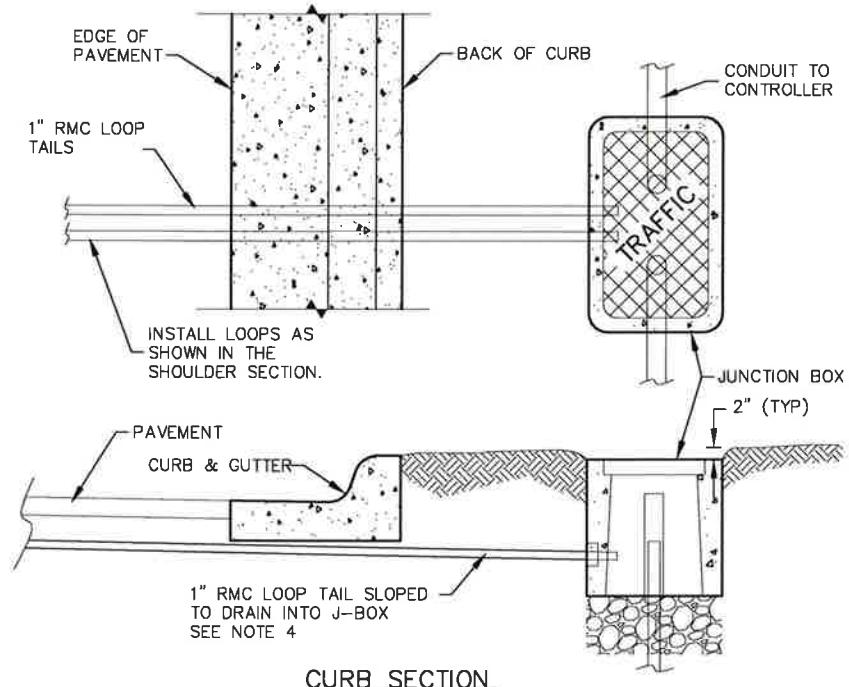
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 (907) 465-1763

SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION

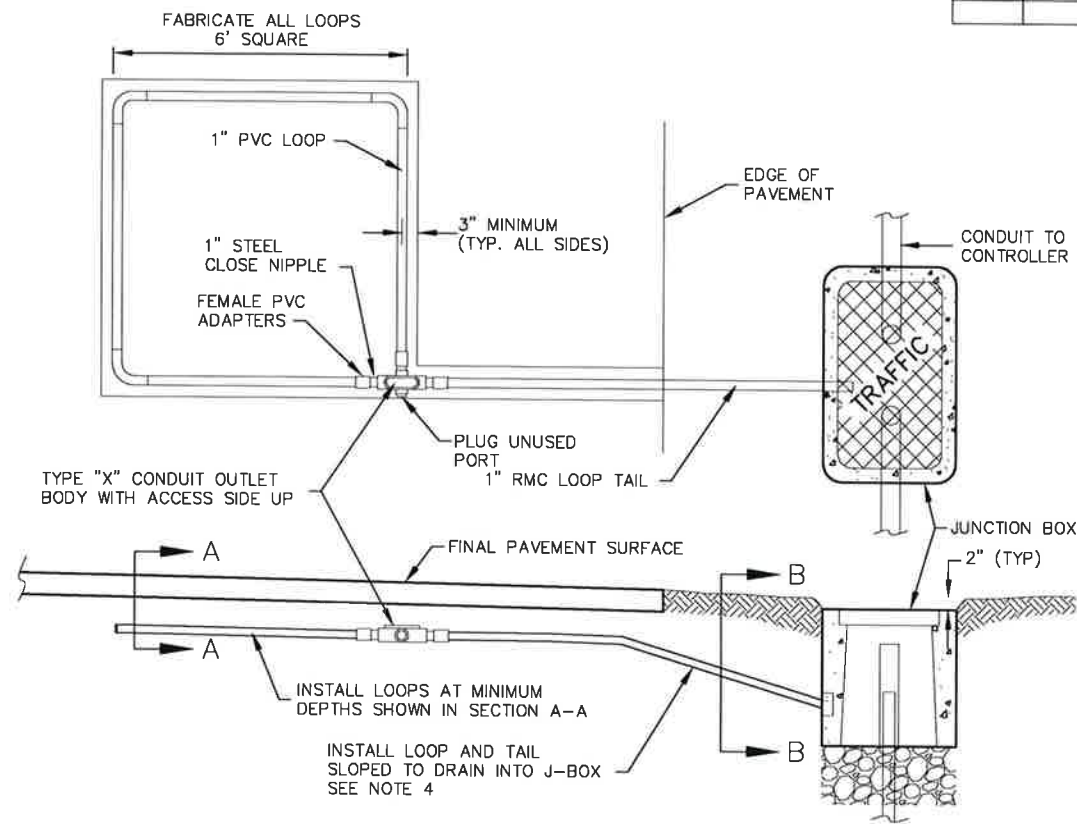
JUNCTION BOX DETAILS

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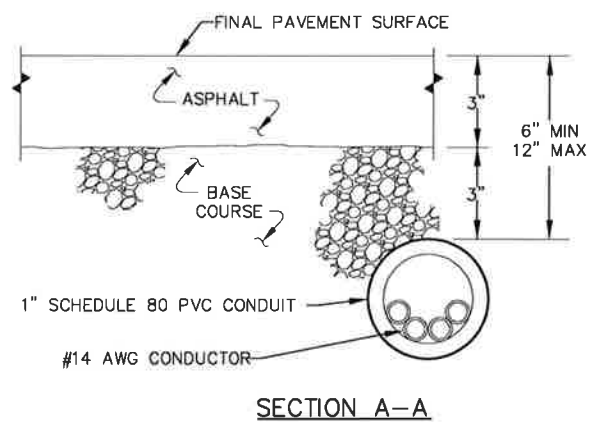
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00076/0003206	2018	Q2	30



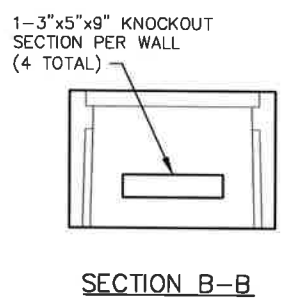
CURB SECTION



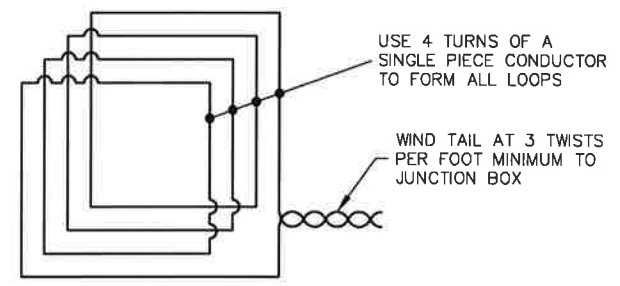
SHOULDER SECTION



SECTION A-A

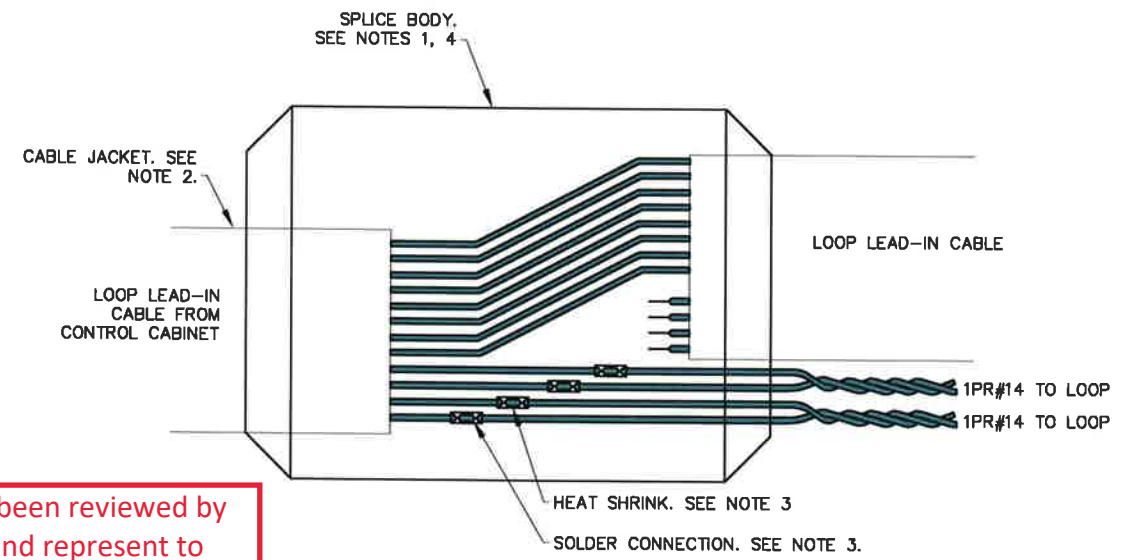


SECTION B-B



6'X6' LOOP WIRING DETAIL

TYPICAL PVC CONDUIT ENCASED LOOP DETECTOR INSTALLATION



TYPICAL SPLICE DETAIL  
NTS

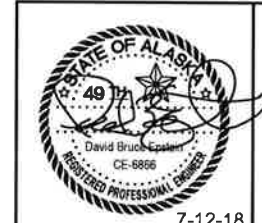
NOTES

1. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF #14 AWG CONDUCTOR INSTALLED IN ONE INCH SCHEDULE 80 PVC CONDUIT. BUILD ALL LOOPS 6.0 FEET SQUARE, UNLESS OTHERWISE NOTED, BY SOLVENT WELDING ALL PVC TO PVC JOINTS. USE TYPE X OUTLET BODIES MADE OF HOT DIP GALVANIZED STEEL TO JOIN THE LOOPS AND TAILS.
2. 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 (PE TUBE). WIND THE TAIL CONDUCTORS TOGETHER AT A RATE OF 3 TWISTS PER FOOT.
3. INSTALL ALL LOOP DETECTORS BEFORE REPLACING PAVEMENT THAT HAS BEEN REMOVED.
4. INSTALL ALL LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS. IF CONTRACTOR CANNOT INSTALL THE LOOP TO DRAIN INTO THE J-BOX, DRILL FIVE 1/4" WEEP HOLES ON 1 FOOT CENTERS IN THE UNDERSIDE OF THE CONDUIT AT THE LOW SPOT.
5. CONTRACTOR MAY INSTALL A LOOP TAIL IMMEDIATELY ADJACENT TO A LOOP AND OTHER LOOP TAILS. LOOP TAILS SHALL NOT CROSS LOOP CONDUITS.
6. TEST ALL LOOP DETECTORS FOR CONTINUITY AND INSULATION INTEGRITY BEFORE SEALING THE LOOPS UNDER THE FINAL LIFT OF ASPHALT. PROVIDE THE ENGINEER A WRITTEN RECORD OF FIELD TESTING TO INCLUDE: CONTINUITY, INSULATION RESISTANCE AND INDUCTANCE TESTS AS REQUIRED IN SECTION 660-3.01(7) OF THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.

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

PE \_\_\_\_\_ Date \_\_\_\_\_

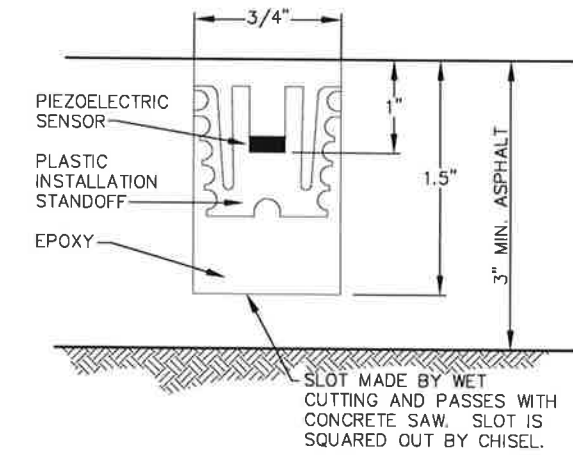
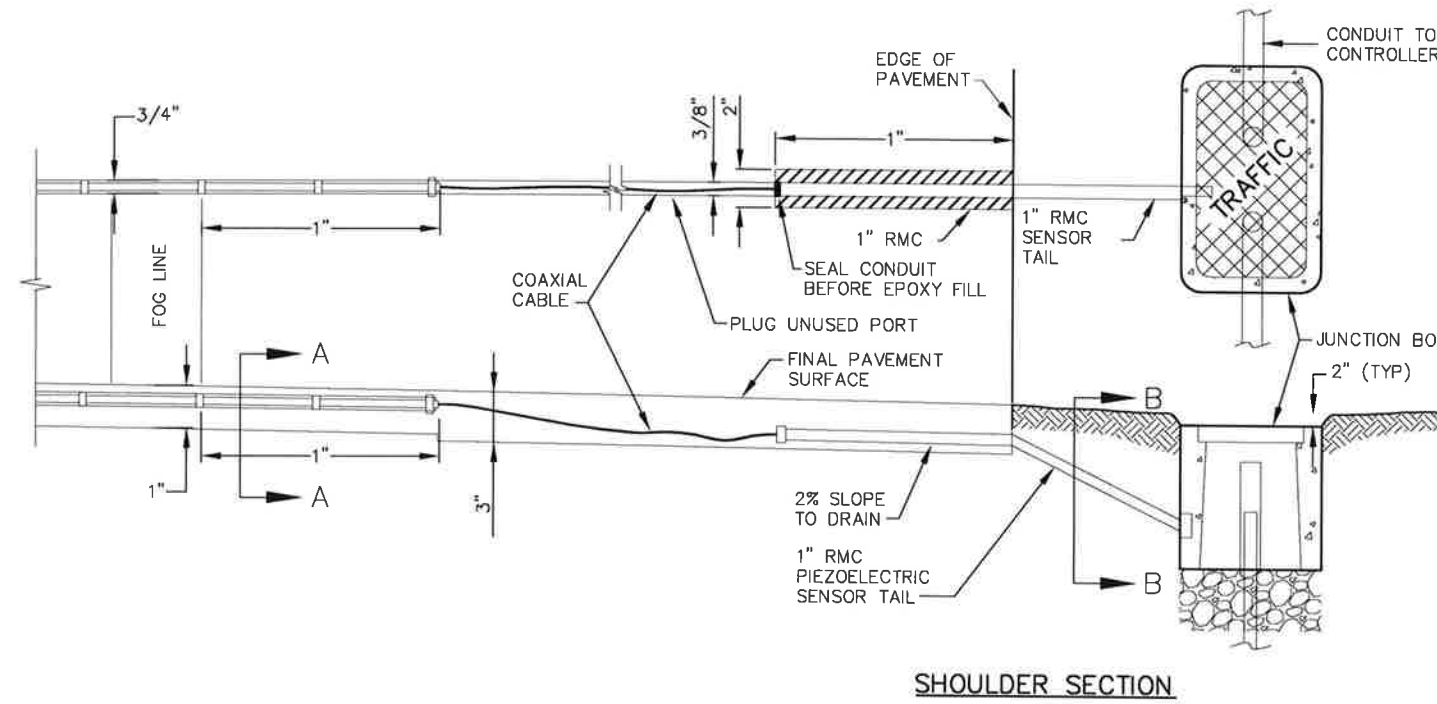
- NOTES:
1. TERMINATE ALL SPARES WITHIN THE SPLICE BODY.
  2. SPLICE BODY TO ENCLOSE ALL CABLE JACKETS.
  3. STAGGER SPLICE POINTS. SOLDER CONNECTIONS. ENCLOSE EXPOSED CONDUCTORS IN ADHESIVE WALL HEAT SHRINK TUBING.
  4. USE A NON-REENTERABLE, WET LOCATION, COMMERCIAL SPLICE KIT 3M TYPE 82-F1 OR SHAWCOR CJ 3A20 SERIES HEAT-SHRINK MEDIUM VOLTAGE JOINT.



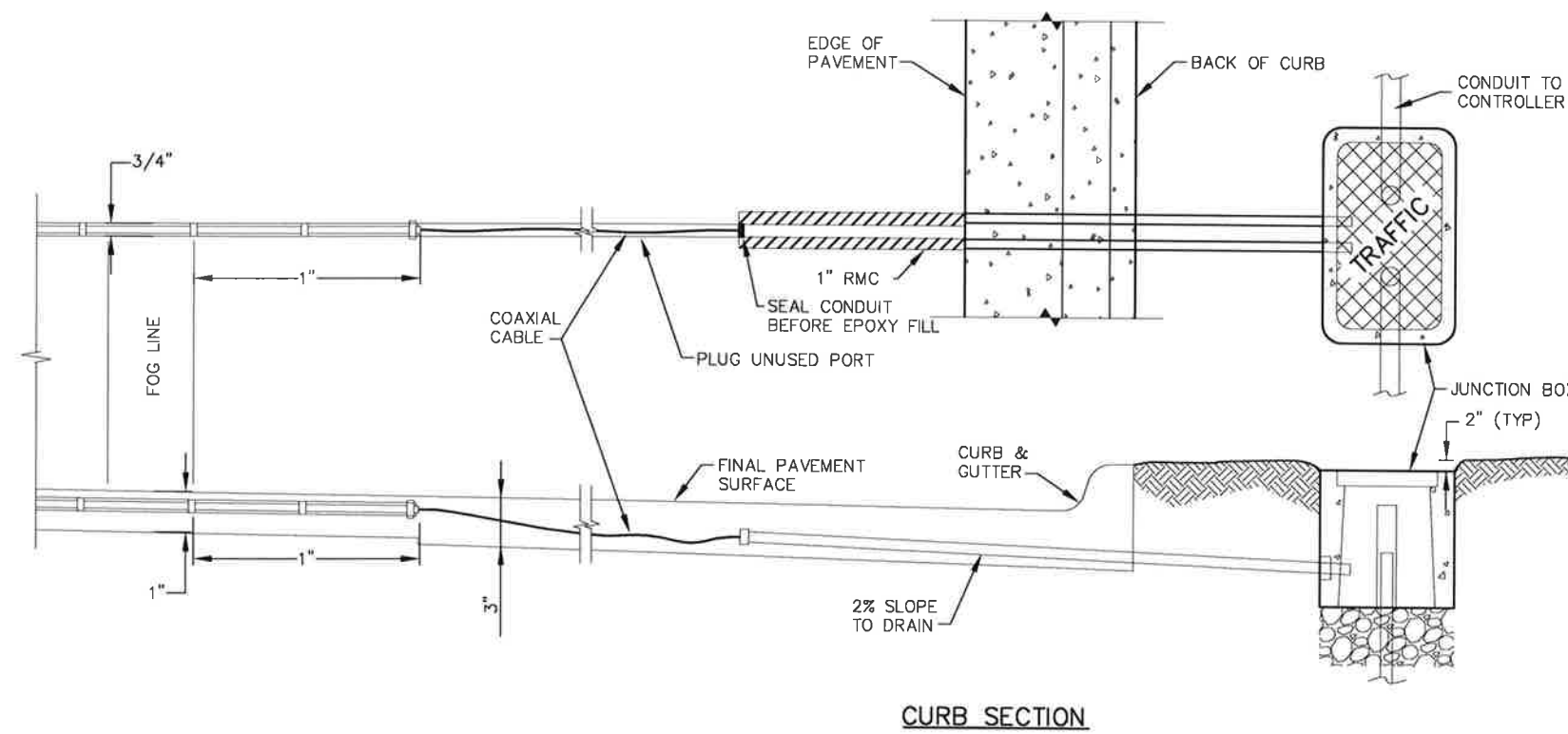
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SR HIGHWAY DATA EQUIPMENT ACQUISITION & INSTALLATION

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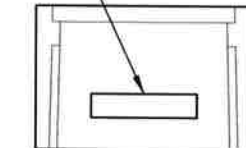
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SECTION A-A



1-3"x5"x9" KNOCKOUT SECTION PER WALL (4 TOTAL)



SECTION B-B

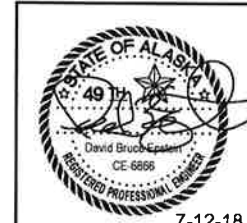
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE \_\_\_\_\_ Date \_\_\_\_\_

**NOTE**

1. REMOVE AND REPLACE CURB, GUTTER, AND SIDEWALK AT SITE R4, WRANGELL ZIMOVIA HIGHWAY, AS NEEDED TO ACCOMMODATE NEW DETECTOR LOOP AND PIEZO TAILS.

**TYPICAL PIEZOELECTRIC SENSOR DETAILS**



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**PIEZOELECTRIC TRAFFIC SENSOR DETAILS**

7-12-18

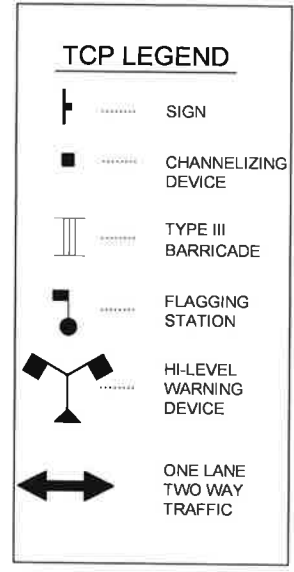
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			ALASKA	SFH\00076/0003206	2018	T1	30

### TRAFFIC CONTROL NOTES

- IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED BY THE CONTRACTOR. ALL TCP'S MUST BE SUBMITTED FOR APPROVAL BY THE ENGINEER PRIOR TO USE.
- TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS AND DURING NON-WORKING HOURS. FLAGGERS MUST BE PRESENT FOR ANY LANE CLOSURES. FLAGGER STATIONS MUST BE ILLUMINATED AT NIGHT.
- TEMPORARY DRIVING LANES SHALL BE A MINIMUM WIDTH OF 10'-0" WIDE.
- THE UNEVEN LANES (CW8-11) SIGN SHOULD BE USED DURING OPERATIONS THAT CREATE A DIFFERENCE IN ELEVATION OF 2 INCHES OR GREATER BETWEEN ADJACENT LANES.
- CHANNELIZATION DEVICES USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.

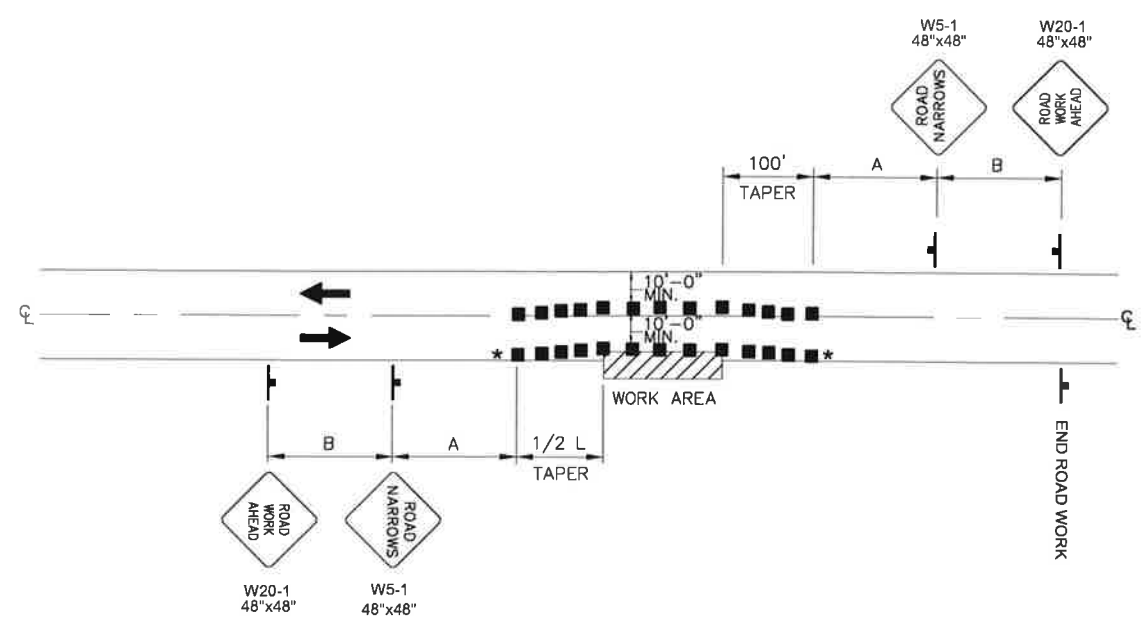


#### WARNING SIGN SPACING

CCS LOCATION	DISTANCE BETWEEN SIGNS, FT		
	A	B	C
C-2, C-5	100	100	100
R-2, R-4, C-1, C-3, C-4	350	350	350
R-1, R-3	500	500	500

#### TCP SETUP TABLE

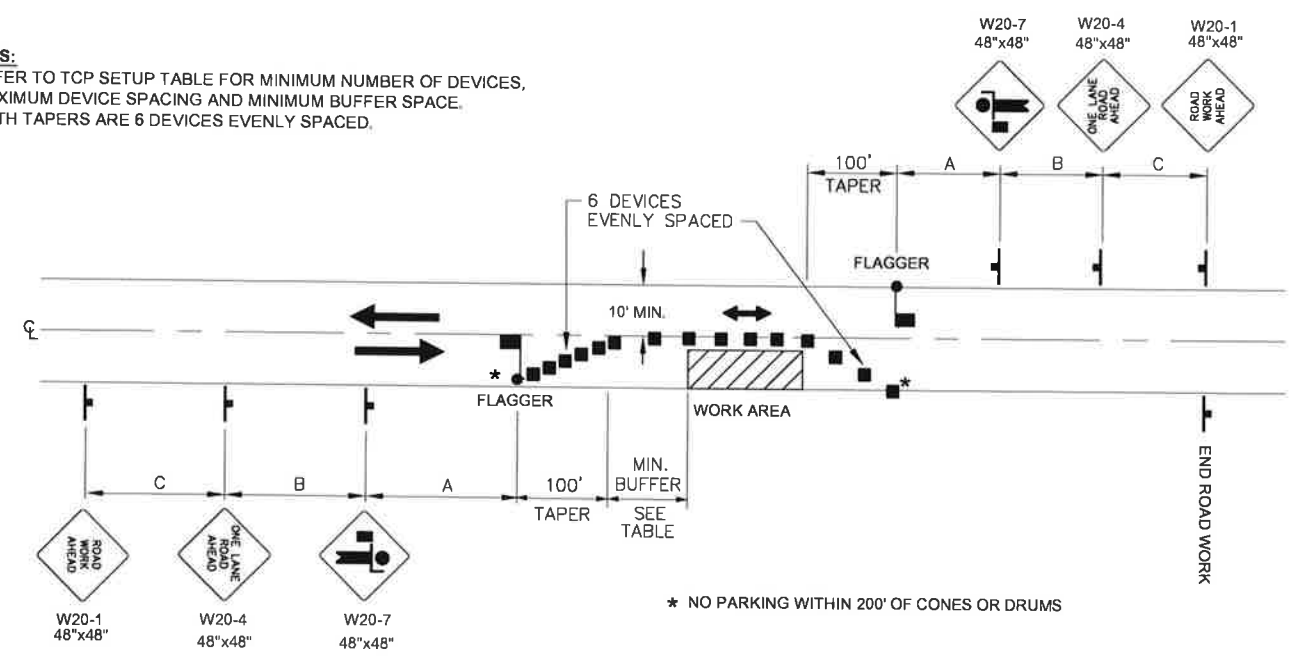
POSTED SPEED OR ANTICIPATED OPERATING SPEED (MPH)	MIN MERGING TAPER LENGTH (L) IN FEET FOR A GIVEN WIDTH OF OFFSET (W) IN FEET			MIN NUMBER OF DEVICES FOR A GIVEN WIDTH OF OFFSET (W) IN FEET			MAX DEVICE SPACING IN FEET		BUFFER SPACE (FT)
	10	11	12	10	11	12	ALONG TAPER	ALONG TANGENT	
20 OR BELOW	70	75	80	5	5	5	25	50	115
25	105	115	125	6	6	6	25	50	155
30	150	165	180	6	7	7	30	60	200
35	205	225	245	7	8	8	35	70	250
40	270	295	320	8	9	9	40	80	305
45	450	495	540	11	12	13	45	90	360
50	500	550	600	11	12	13	50	100	425



### ROADWAY ENCROACHMENT

**NOTE:**  
IF ONLY ONE LANE IS AFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE SHALL BE DELETED.  
\* NO PARKING WITHIN 200' OF CHANNELIZING DEVICES.

- NOTES:**
- REFER TO TCP SETUP TABLE FOR MINIMUM NUMBER OF DEVICES, MAXIMUM DEVICE SPACING AND MINIMUM BUFFER SPACE.
  - BOTH TAPERS ARE 6 DEVICES EVENLY SPACED.



### TWO LANE ROAD - SINGLE LANE CLOSURE

DOUBLE FLAGGER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
  
 PE \_\_\_\_\_ Date \_\_\_\_\_

TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012

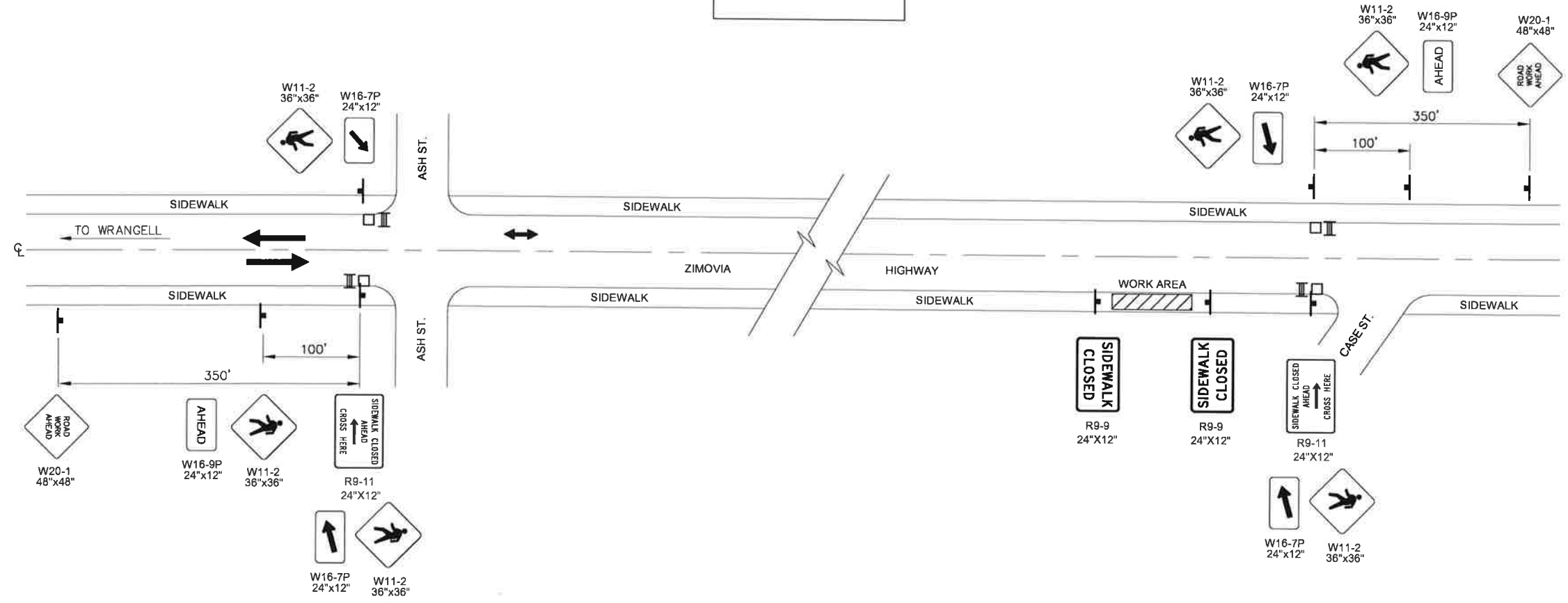
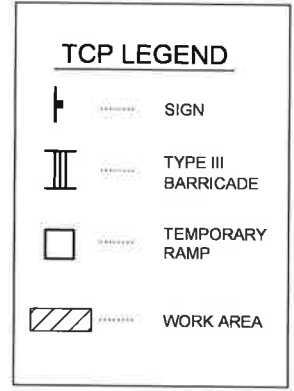
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TRAFFIC CONTROL PLANS

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**SIDEWALK CLOSURE**  
NOT TO SCALE

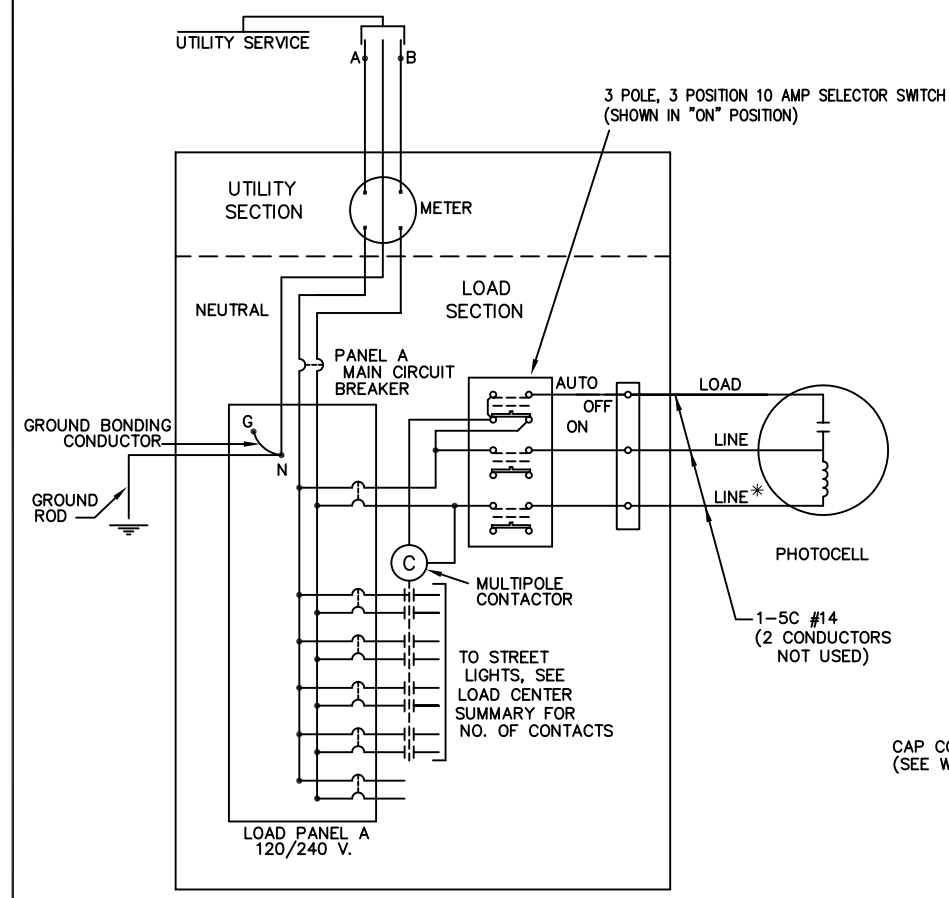
- NOTES:**
1. PROVIDE PEDESTRIAN TRAFFIC CONTROL DEVICES WHEN SIDEWALKS OR PATHWAYS ARE CLOSED TO PEDESTRIANS AND WHERE REQUIRED BY THE PLANS OR SPECIFICATIONS.
  2. MAINTAIN A MINIMUM PEDESTRIAN FACILITY WIDTH OF 5 FEET OR THE WIDTH OF THE FACILITY THAT EXISTED BEFORE CONSTRUCTION, WHICHEVER IS LESS.
  3. 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.
  4. PROVIDE RAMP FOR A STREET LEVEL CROSSING WHERE NO RAMPED SIDEWALK ACCESS CURRENTLY EXISTS. RAMP AT 12:1. PROVIDE A BARRICADE TO DELINEATE THE RAMP FOR APPROACHING VEHICLES.
  5. CONSTRUCTION WILL REQUIRE SIDEWALK CLOSURE ON BOTH SIDES OF ZIMOVIA HIGHWAY. CONSTRUCT SO THAT ONLY ONE SIDEWALK IS CLOSED AT ANYTIME. ADJUST SIGNAGE TO PROVIDE LIKE GUIDANCE WHEN EAST SIDEWALK IS CLOSED.

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

PE \_\_\_\_\_ Date \_\_\_\_\_

<p>TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 6860 GLACIER HIGHWAY, JUNEAU, AK 99811 (907) 465-1763</p>
	<p>SR HIGHWAY DATA EQUIPMENT ACQUISITION &amp; INSTALLATION</p>

TRAFFIC CONTROL PLAN



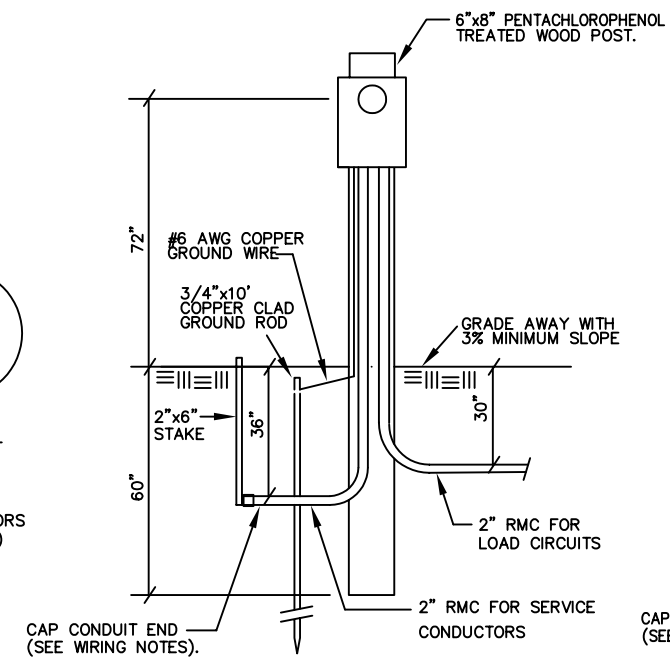
LOAD CENTER ONE LINE DIAGRAM AND SELECTOR SWITCH WIRING

TYPE 2 & 3 LOAD CENTERS - USED FOR LIGHTING WITH PHOTOELECTRIC AND THERMOSTATIC CONTROLS  
 \* GROUNDED NEUTRAL, IF SERVICE IS 240/480 VOLT SINGLE PHASE OR 277/480 VOLT THREE-PHASE; AND UNDERGROUND LINE, IF SERVICE IS 120/240 VOLT SINGLE PHASE.

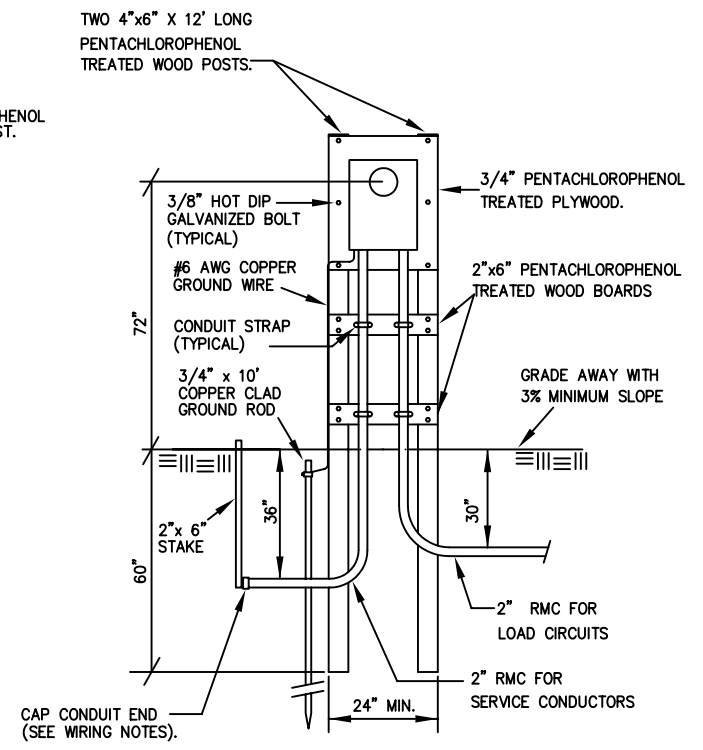
INSTALLATION NOTES:

- INSTALL TYPE 3 LOAD CENTER POLES OF SUFFICIENT LENGTH TO PROVIDE THE FOLLOWING MINIMUM GROUND TO SERVICE CONDUCTOR CLEARANCE:
  - 21 FEET, IF THE SERVICE CONDUCTORS ARE LOCATED ABOVE ROADWAYS OR PARKING AREAS.
  - 28 FEET, IF THE SERVICE CONDUCTORS ARE LOCATED WITHIN 20 FEET OF A RAILROAD TRACK.
  - 18 FEET IN ALL OTHER CIRCUMSTANCES.
- SET THE BUTT END OF TYPE 3 LOAD CENTER POLES TO THE FOLLOWING MINIMUM DEPTH:
  - 10 PERCENT OF ITS LENGTH PLUS 2 FEET, OR 5 FEET, WHICHEVER IS GREATER, IF IT IS INSTALLED IN EARTH OTHER THAN SOLID ROCK OR MUSKEG.
  - 10 PERCENT OF ITS LENGTH, OR 4 FEET, WHICHEVER IS GREATER, IF IT IS INSTALLED IN SOLID ROCK.
  - CONSIDER MUSKEG TO BE AIR, AND SET THE BUTT ENDS TO THE DEPTH GIVEN IN A OR B, WHICHEVER APPLIES, IN THE UNDERLYING EARTH OR ROCK.

WHENEVER MORE THAN TWO FEET OF EARTH OVERLAYS ROCK, OR THE DIAMETER OF THE DRILLED HOLE IN ROCK EXCEEDS TWICE THE DIAMETER OF THE POLE AT THE GROUND LINE, CONSIDER THE INSTALLATION AS EARTH.
- ATTACH ALL CONDUITS TO THE POSTS AND POLES USING TWO HOLE RIGID METAL CONDUIT STRAPS LOCATED ON 24 INCH MAXIMUM CENTERS.
- ATTACH ALL GROUND CONDUCTORS TO THE POSTS AND POLES USING CABLE STAPLES LOCATED ON 12 INCH CENTERS.



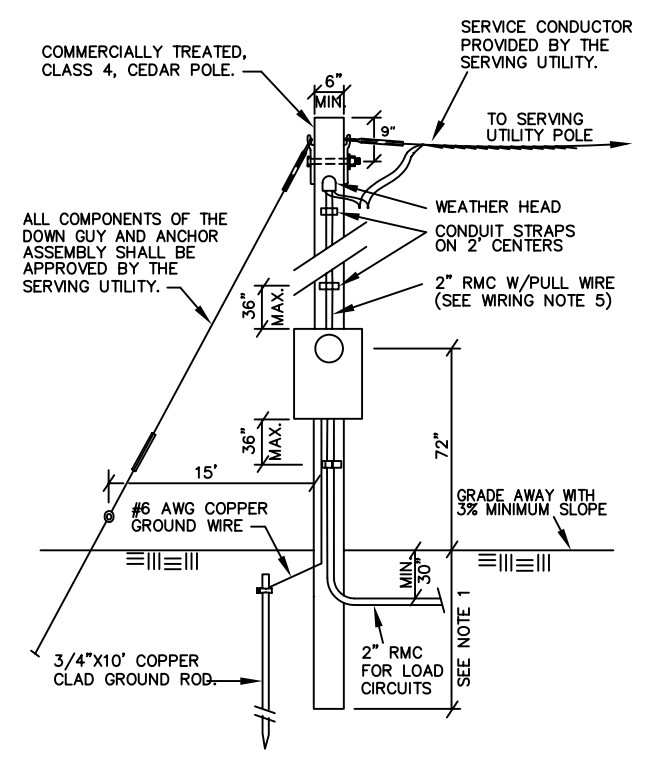
TYPE 2 LOAD CENTER SINGLE POST - STANDARD



TYPE 2 LOAD CENTER DUAL POST - ALTERNATE

WIRING NOTES:

- FURNISH ALL EQUIPMENT NOTED IN THE LOAD CENTER SUMMARY, PLUS TWO 20-AMP 2-POLE SPARE CIRCUIT BREAKERS, AND SPACE FOR A MINIMUM OF TWO ADDITIONAL TWO-POLE CIRCUIT BREAKERS, IN EACH LOAD PANEL. SEE SUMMARIES FOR LOAD PANEL VOLTAGES, CURRENT RATINGS, SHORT CIRCUIT INTERRUPTING RATINGS, AND THE NAME OF THE SERVING UTILITY.
- SIZE THE TYPE 2 AND 3 LOAD CENTER CABINETS TO HOLD THE EQUIPMENT SHOWN IN THE WIRING DIAGRAM AND DETAILED IN EACH LOAD CENTER SUMMARY, ALLOWING SPACE FOR WIRING PER THE NATIONAL ELECTRICAL CODE. INSTALLING A METER BASE AND MAIN BREAKER IN A SEPARATE ENCLOSURE IS ALLOWABLE. HOWEVER IN THIS CASE, FURNISH A BREAKER PANEL WITH A MAIN BREAKER.
- LABEL ALL CIRCUIT BREAKERS AS TO FUNCTION AND POSITION. LABEL THE SELECTOR SWITCH "LIGHTING" AND ITS POSITIONS "ON-OFF-AUTO".
- THE VOLTAGE FOR THE PHOTOELECTRIC CONTROL EQUIPMENT SHALL BE 240-VOLT, DERIVED FROM THE SERVICE VOLTAGE, OR FROM A CONTROL TRANSFORMER.
- LABEL ALL CIRCUIT BREAKERS AS TO FUNCTION AND POSITION.
- STORE A SCHEMATIC DIAGRAM, A CIRCUIT DIRECTORY, AND A MATERIALS LIST THAT INCLUDES THE MANUFACTURER'S NAME AND PART/CATALOG NUMBERS, ALL LAMINATED IN PLASTIC, IN A METAL POCKET ATTACHED TO THE INSIDE OF THE LOAD CENTER. INSTALL THE POCKET ON THE LOAD CENTER DOOR, PROVIDING DRAIN HOLES TO PREVENT WATER ACCUMULATION.
- WHEN METAL HALIDE OR MERCURY VAPOR LAMPED FIXTURES ARE USED, PROVIDE A REMOTE BULB THERMOSTAT, SO THAT THE CONTACT CLOSURES AND THE LIGHTS TURN ON WHEN THE TEMPERATURE DROPS TO 15° FAHRENHEIT. WIRE THERMOSTAT SO THAT ITS CONTACT IS PARALLEL THE CONTACT IN THE PHOTOELECTRIC CELL.
- USE THE SINGLE-POST TYPE 2 "STANDARD" LOAD CENTER IN ALL LOCATIONS EXCEPT WHERE THE SERVING UTILITY REQUIRES THE TWO-POST TYPE 2 "ALTERNATIVE" LOAD CENTER. REFER TO THE LOAD CENTER SUMMARY FOR WHICH TO INSTALL.
- THE LENGTH AND TYPE OF SERVICE ENTRANCE CONDUIT INSTALLED BY THE CONTRACTOR VARIES BY UTILITY. REGARDLESS OF ITS LENGTH, INSTALL A PULL ROPE IN THE SERVICE CONDUIT AND A CAP ON THE BURIED END: MARK THE BURIED END WITH A 2"x 6" STAKE. SEE THE LOAD CENTER SUMMARIES FOR THE FOLLOWING INFORMATION.
  - STATION AND OFFSET OF THE LOAD CENTER AND POWER SOURCE.
  - WHERE THE CONTRACTOR TERMINATES THE SERVICE ENTRANCE CONDUIT.
  - THE TYPE OF SERVICE ENTRANCE CONDUIT (SUCH AS RIGID METAL CONDUIT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT).
  - THE MAXIMUM AND MINIMUM DISTANCES ALLOWED BETWEEN THE TYPE-3 LOAD CENTER POLE AND UTILITY POLE TO WHICH THE AERIAL DROP IS CONNECTED.



TYPE 3 LOAD CENTER

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

PE \_\_\_\_\_ Date \_\_\_\_\_

REVISIONS		
Date	Description	By

Sheet 1 of 1

State of Alaska  
 Department of Transportation & Public Facilities

**TYPE 2 AND 3  
 LOAD CENTERS**

APPROVED

Date 5/15/01

### DESIGN NOTES:

- Design Standard: 2001 Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals with 2006 interim.
- Design Load: 1,000 lbs axial, 2,000 lbs shear, 50,000 ft-lbs moment.
- Construction Standard: Latest edition of the State Of Alaska Standard Specifications for Highway Construction with Special Provisions.

### NOTES:

- This foundation is approved for electrolier and breakaway traffic signal applications in cohesionless soils with an NI-60 value of 10 or greater per AASHTO T-206, "Standard Penetration Test" (SPT). This foundation shall not be used if any of the following are encountered; water table above the bottom of foundation, very loose soils, organic soils, cohesive soils (clay), or soils susceptible to frost jacking. If any of these conditions are encountered, stop foundation work and contact the Engineer.
- Place foundation in drilled or excavated hole with centerline of foundation located at the station, offset, and elevation specified in plans. Set foundation to satisfy the conditions depicted in clearance detail.
- Form the foundation in corrugated metal pipe conforming to Subsection 707-2.01 of the Specifications.
- Provide 1.5 extra turns at each end of the spiral reinforcing steel. Reinforcing steel shall not be spliced. Tie vertical reinforcing steel to each intersection of the spiral reinforcing steel.
- Connect ground wire near the top of spiral reinforcing steel with two irreversible connectors as shown. Fasten connectors according to the manufacturers' recommendations including the use of manufacturer specified tools. The ground wire may be bare solid, stranded, or braided copper. Protect ground wire with protective sleeve as shown and fill with silicon sealant.
- Complete all concrete work in conformance with Sections 501, 503, and 660 of the Specifications. Use a tube with a hopper head or other approved device when dropping concrete more than 5 feet per Subsection 501-3.08. Vibrate concrete during placement by mechanical vibration per Subsection 501-3.08. Ensure anchor threads are protected from contact with concrete during pour.
- Backfill and compact according to Section 205, and Subsections 203-3.04 and 660-3.01 of the Specifications. Use select material, Type A or sand slurry as backfill material. Ensure area below foundation meets compaction requirements and is free of loose material and debris prior to concrete work.
- Install all anchors according to the manufacturer's written installation instructions. Anchors shall be installed plumb. Anchors greater than 1:40 out-of-plumb will result in foundation rejection.
- When used for electrolier reduce the foundation depth 1 foot when there is no luminaire arm or the luminaire arm is less than or equal to 12 feet.
- Grade in depth table refers to fill slopes. If foundation is in a cut slope assume flat grade in table. To determine grade in fill slopes, use the most severe grade found within an 8 foot radius of the center of the foundation. Slopes steeper than 1.5:1 require engineered depth calculation.

MATERIAL REQUIREMENTS		
Concrete	Class A	f'c = 4000 psi
CMP	AASHTO M218	14 ga.
Vertical Reinforcing Steel	AASHTO M31 #11	GR 60
Spiral Reinforcing Steel	AASHTO M31 #5	GR 60
Ground Wire		#4 awg
Frangible Coupling	NCHRP 350 TL3 Frangible Coupling	Vu = 5.5 kips Tu = 43.2 kips
Anchor	NCHRP 350 TL3 Frangible Coupling Anchor	
Conduit	Sch 40	RMC
Protective Sleeve	Sch 40	PVC

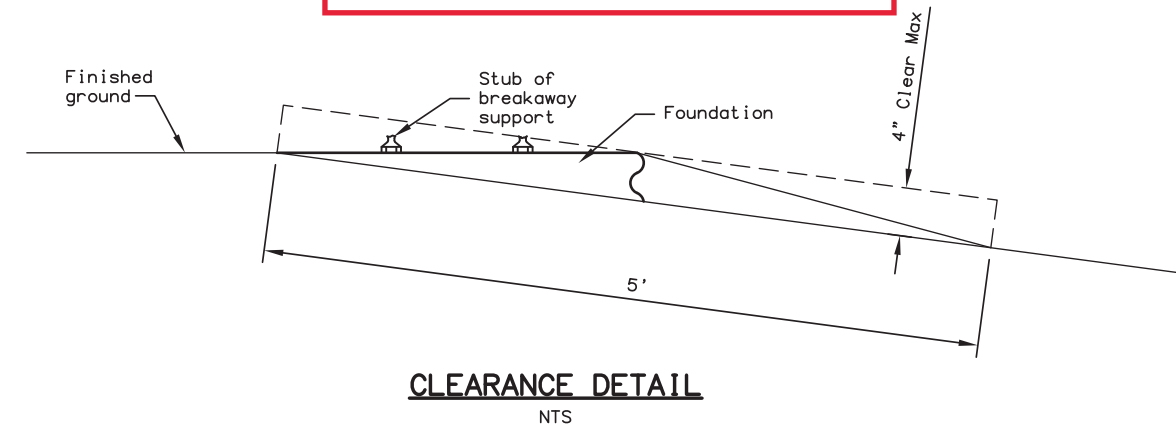
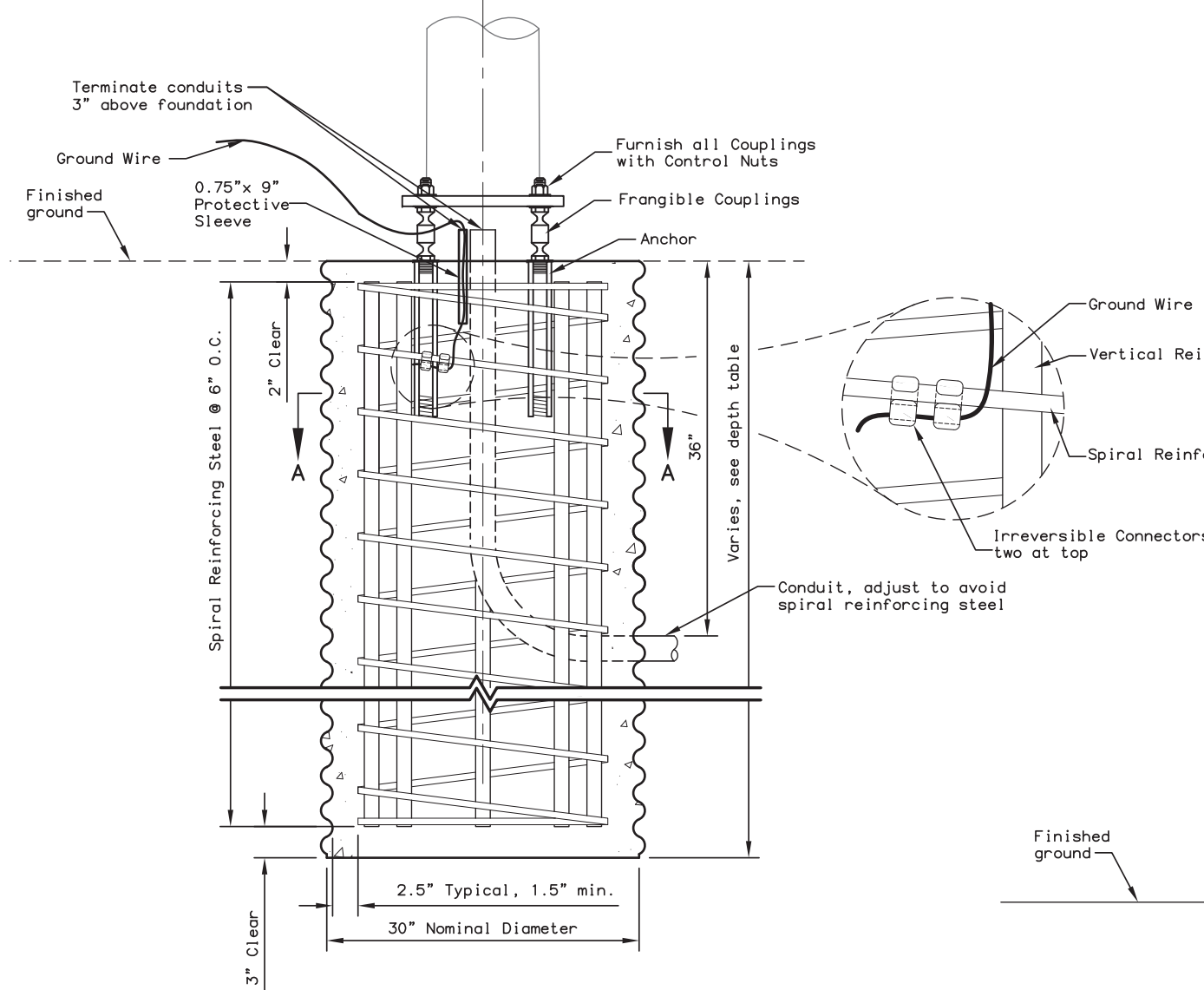
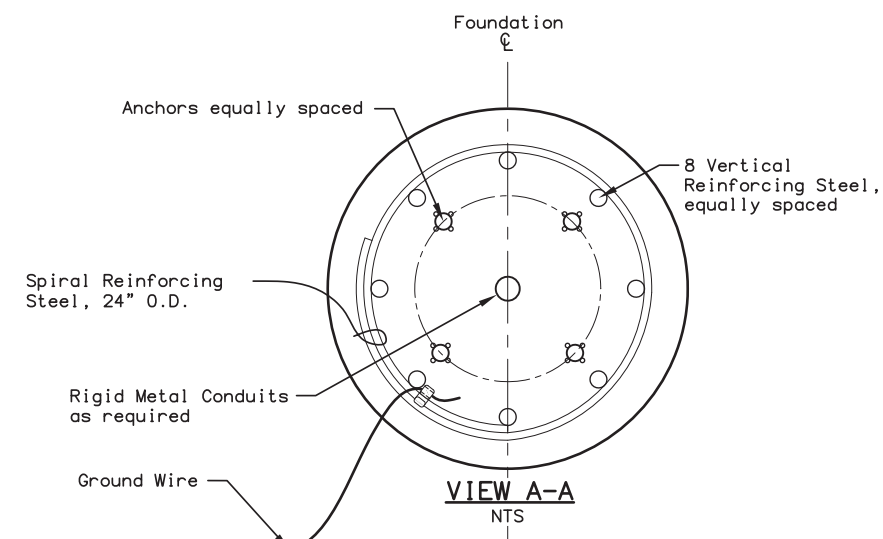
DEPTH TABLE		
GRADE	FOUNDATION DEPTH BY APPLICATION (ft.)	
	ELECTROLIER * SEE NOTE 9	BREAKAWAY TRAFFIC SIGNAL
Flat to 6:1	8	6
>=6:1 to 3:1	9	7
>=3:1 to 1.5:1	10	8

SAND SLURRY MIX DESIGN		
ITEM	BATCHING QUANTITIES PER CYD BATCH (lbs.)	APPLICABLE SPECS.
Portland Cement Concrete	188	701-2.01
Water (52.1 gal.)	435	712-2.01
Fine Aggregate SSD	3041	703-2.01
Admixture: Microair	2.0 oz.	711-2.02
Total	3664	

BOLT CIRCLE	
REGION	DIAMETER
Northern Region Projects	14.5"
Central Region Projects	15.5"
Southeast Region Projects	15.5"

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

PE \_\_\_\_\_ Date \_\_\_\_\_



REVISIONS		
Date	Description	By

**SHEET 1 OF 1**

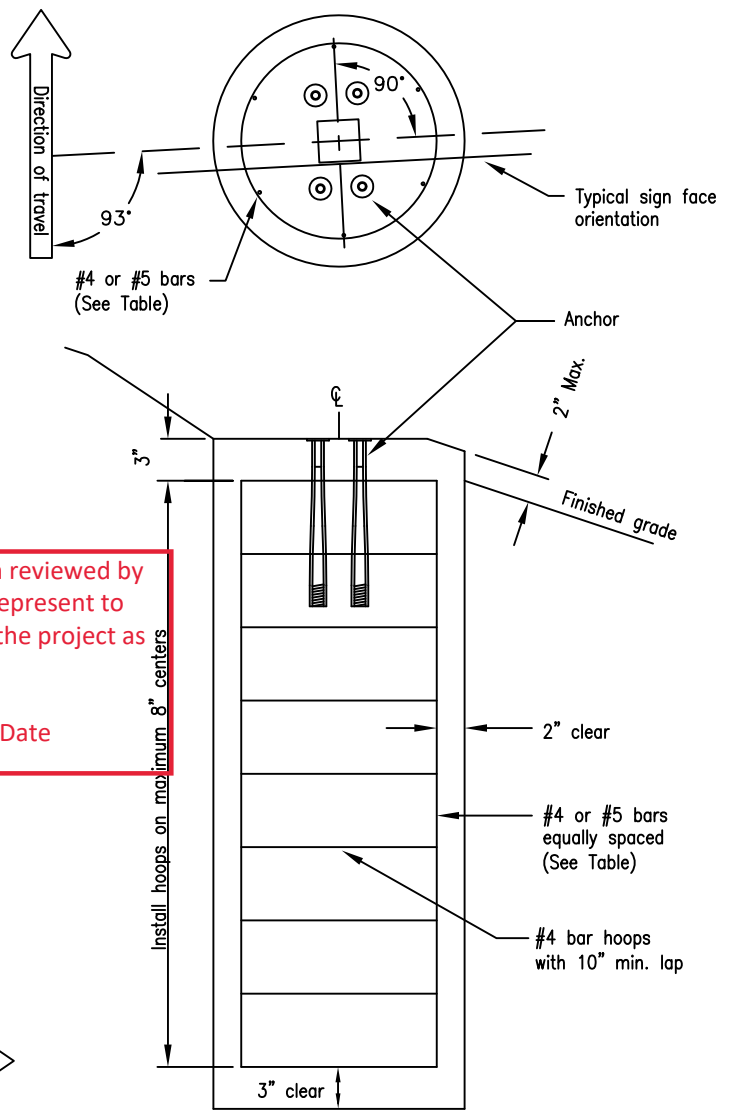
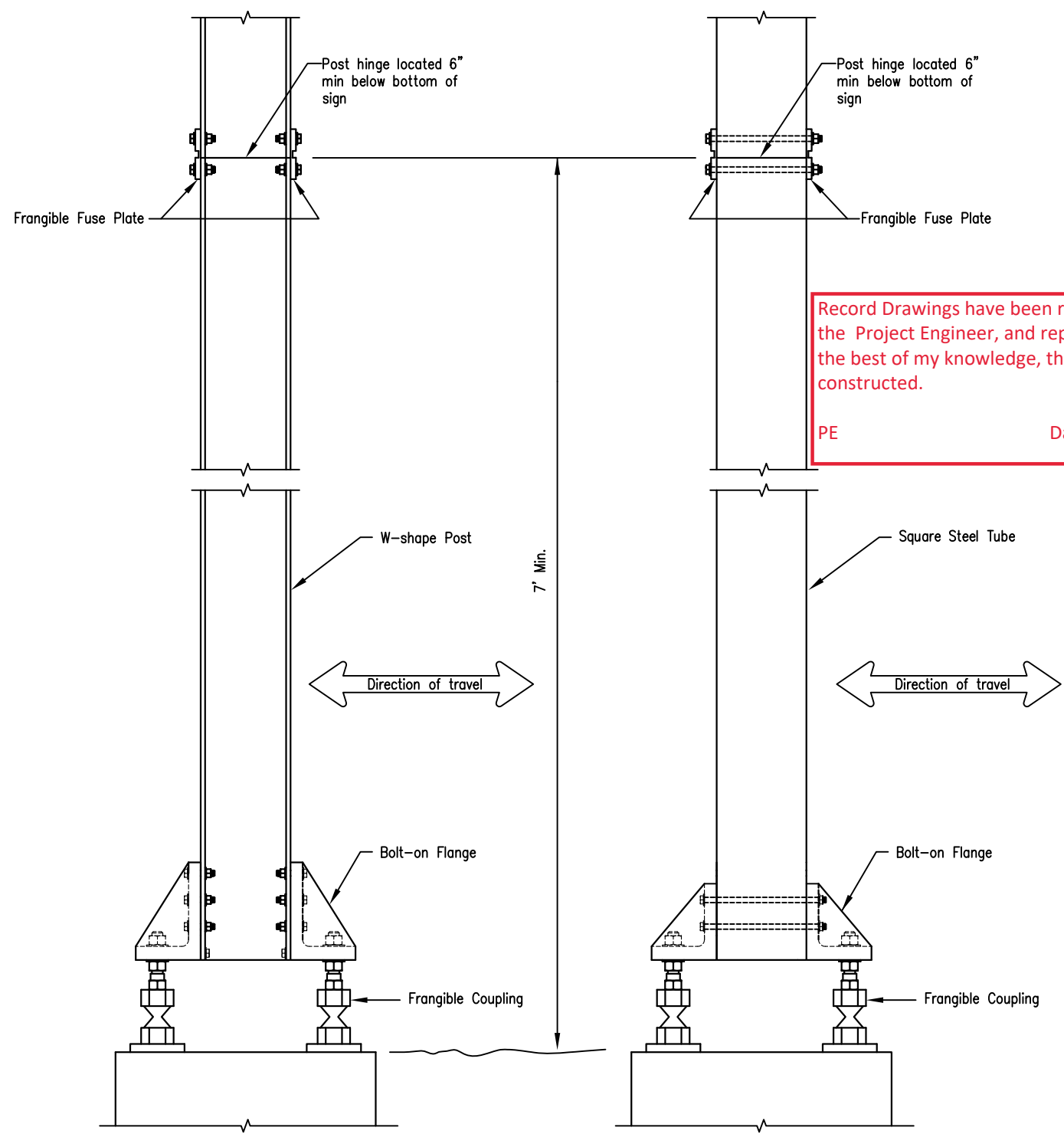
State of Alaska  
Department of Transportation  
& Public Facilities

**CONCRETE STREET LIGHT  
POLE FOUNDATION**

APPROVED

Date 05/31/12

**NOTE:**  
Install hinges when more than one post is used to support a sign. Do not install hinges on single post installations.



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

PE \_\_\_\_\_ Date \_\_\_\_\_

**SIGN POST FOUNDATION**  
See Table for depth and diameter

**GENERAL NOTES**

1. Furnish sign posts with NCHRP 350 or MASH compliant FHWA-approved frangible couplings designed to break away safely when struck from any direction. The frangible couplings shall not have specific installation torque requirements.
2. Furnish frangible coupling systems with bolt-on flanges.
3. Details on this sheet illustrate only the general components of a frangible coupling system, and are not intended to specify a particular product.
4. Install frangible fuse plates as specified by the manufacturer and hinged joints when multiple posts are used to support a sign. Do not use round pipes.
5. Install the components of the breakaway system, including hinges, in accordance with the written instructions of the system manufacturer.
6. Use Class A concrete conforming to section 501 of the Standard Specifications. Furnish ASTM A615 grade 60 steel bars for concrete reinforcement conforming to AASHTO M31.
7. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of #3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
8. Install the concrete anchors using a rigid template. Locate the anchors on centers and within tolerances specified by the manufacturer.
9. Install the anchors in fresh concrete as recommended by the manufacturer. Adjust the template's final position until it is level. Remove and replace all foundations that need more than 2 shims under any 1 coupling or more than a total of 3 shims under any pair of couplings to plumb the post.
10. Drill the holes for attaching brackets before the sign posts are hot dip galvanized. Test fit templates in the holes to ensure the brackets can be installed square to the posts.

POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT			
	DIA.	MIN. DEPTH	CONC. CV <sup>3</sup>	VERTICAL BARS QTY. SIZE	LGTH.	HOOPS QTY. SIZE	DIA.
2 1/2" TUBE	1'-6"	4'-0"	0.26	6 #4	3'-6"	7 #4	1'-2"
3" TUBE	1'-6"	4'-0"	0.26	6 #4	3'-6"	7 #4	1'-2"
3 1/2" TUBE	1'-6"	4'-6"	0.30	6 #4	4'-0"	8 #4	1'-2"
4" TUBE	2'-6"	4'-0"	0.72	7 #5	3'-6"	7 #4	2'-2"
4 1/2" TUBE	2'-6"	4'-6"	0.81	7 #5	4'-0"	8 #4	2'-2"
5" TUBE	2'-6"	5'-6"	1.00	7 #5	5'-0"	9 #4	2'-2"
W6 x 9	2'-6"	4'-0"	0.95	8 #5	3'-6"	7 #4	2'-2"
W6 x 12	2'-6"	4'-6"	1.07	8 #5	4'-0"	8 #4	2'-2"
W6 x 15	3'-0"	6'-6"	1.69	8 #5	6'-0"	11 #4	2'-8"
W6 x 30	3'-0"	7'-6"	1.95	8 #5	7'-0"	12 #4	2'-8"

\* Foundations sized for use where there are no loose, high moisture, or fine grained soils.

REVISIONS		
Date	Description	By
4/28/10	Delete pipe, Add hinge	KJS

Sheet 1 of 1

State of Alaska  
Department of Transportation  
& Public Facilities

**SIGN POST BASE AND  
FOUNDATION**

APPROVED

Date 5/31/12