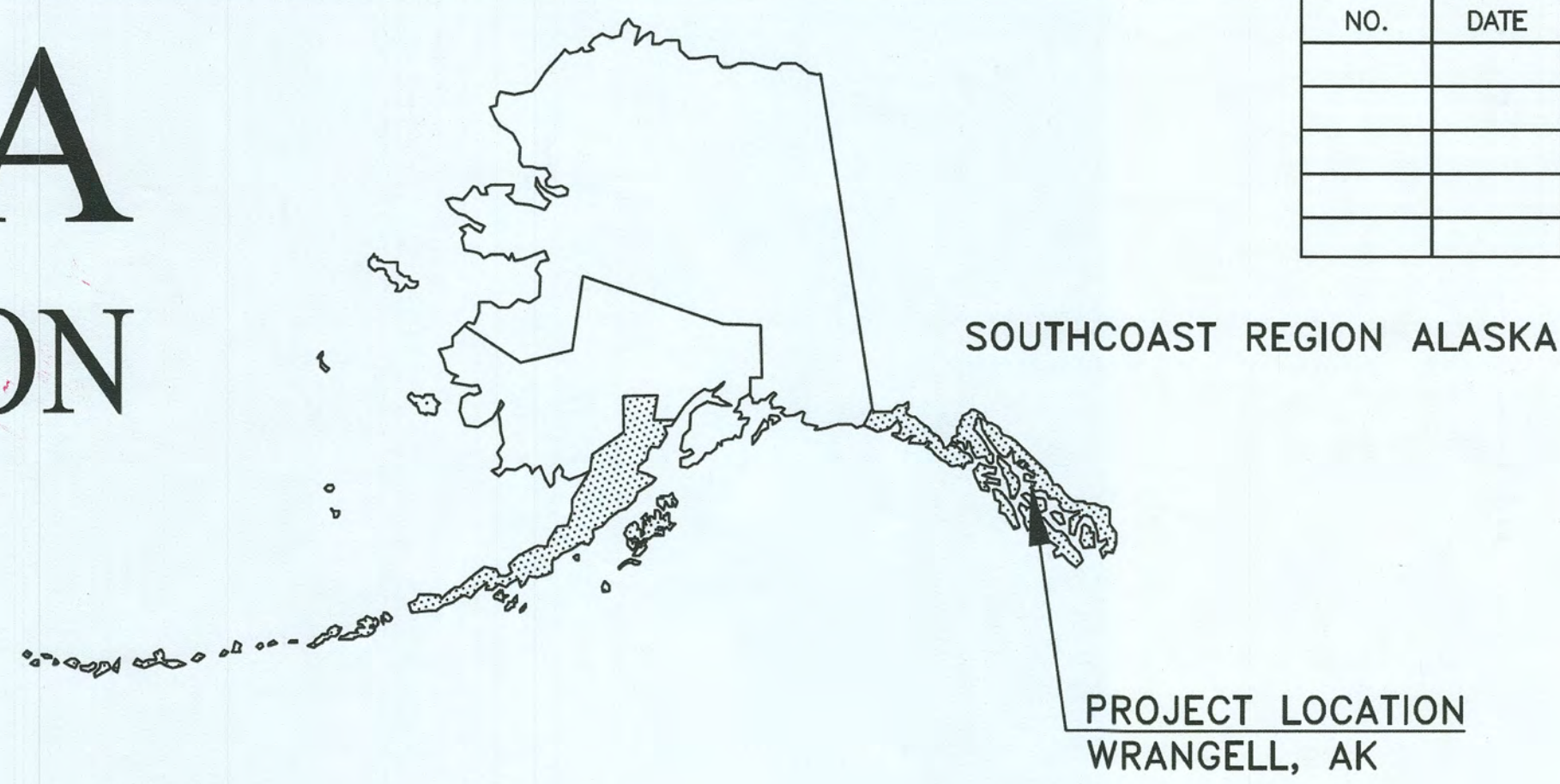


STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES



NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFHWHY00308	2022	A1	12
				CDS ROUTE: 293300	MILEPOINT: 6.0 TO 6.6		
				LATITUDE: 56°23'33.50"N	LONGITUDE: 132°20'38.86"W		

PROJECT SUMMARY	
PROJECT TYPE	HSIP
FUNCTIONAL CLASS	MINOR COLLECTOR
ADT (2020)	320
POSTED SPEED	45 MPH

PROPOSED HIGHWAY PROJECT

WRG ZIMOVIA HWY ROCK FALL MITIGATION HSIP PROJECT NO. 0003262/SFHWHY00308

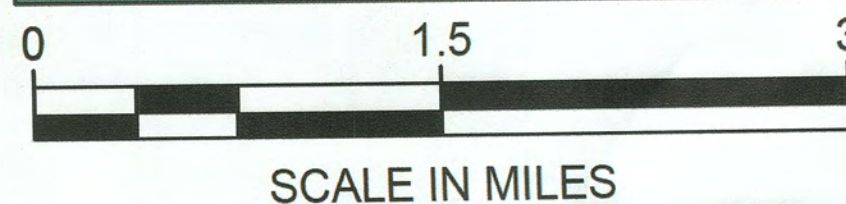
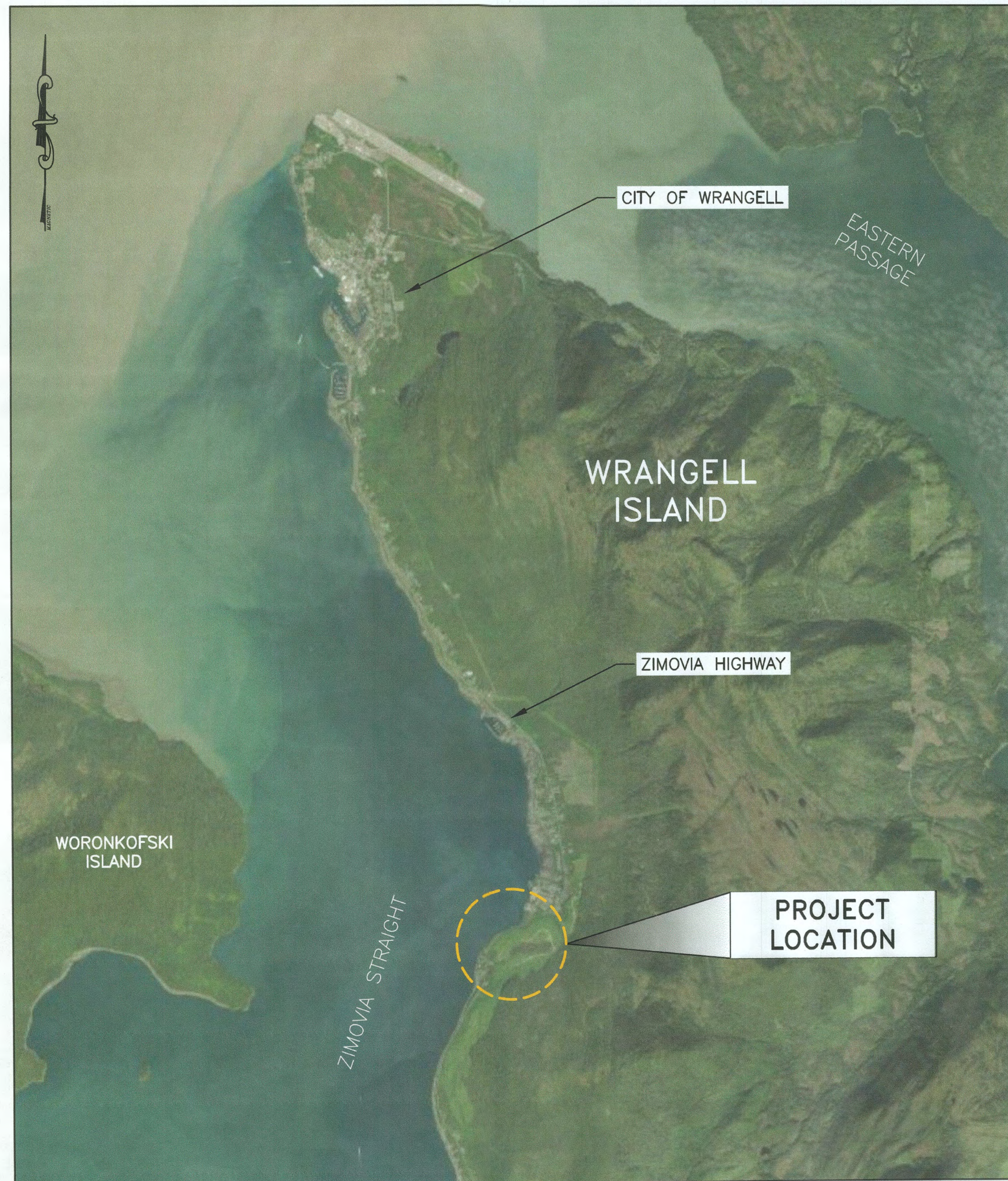
AS-BUILT PLANS

CONTRACTOR: HiEx Construction Inc.

PROJECT ENGINEER: Valeric Bean

BEGIN DATE: MAY 27, 2024

END DATE: JUNE 13, 2024



VICINITY MAP: WRANGELL ISLAND

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

Hollie Roselle

March 18, 2024

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020 EDITION AND THE PROJECT SPECIAL PROVISIONS.

STATE OF ALASKA	
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES 6860 GLACIER HIGHWAY, JUNEAU, AK 99801 (907) 465-1763	
APPROVED:	
DocuSigned by: <i>Kirk Miller</i>	7/24/2023
KIRK MILLER, P.E. REGIONAL PRECONSTRUCTION ENGINEER	DATE
CONCUR:	
DocuSigned by: <i>Christopher Goins</i>	7/24/2023
CHRISTOPHER GOINS, P.E., C.M. DIRECTOR, SOUTHCOAST REGION	DATE

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

PE *Bean* Date 6-21-24

FILE Q:\Wrg_SFHWHY00308\PlanSet\WRG308_A1_TITLE.dwg DATE 7/12/2023 13:09 LAYOUT A1 DESIGNED MM, ML, TE CHECKED TE DRAFTED MU

FILE C:\Wrg\SFH\WY00308\PlanSet\Wrg308_A2_INDEX.dwg DATE 12/12/2023 9:50 LAYOUT A2 DESIGNED MM, ME, TE CHECKED TE DRAFTED MU

GENERAL NOTES:

1. CONTAIN ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY AND EASEMENTS. DO NOT DISPOSE OF EXCESS MATERIAL WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
2. THE HORIZONTAL ALIGNMENT AND VERTICAL PROFILE WILL BE THE APPROXIMATE CENTERLINE OF THE EXISTING ROAD AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFH\WY00308	2022	A2	12

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SHEET INDEX & LAYOUT
B1-B2	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES & SUMMARY TABLES
E1	DETAILS
F1-F4	SITE PLANS & ANNOTATED PHOTOGRAPHS
T1	TRAFFIC CONTROL PLANS

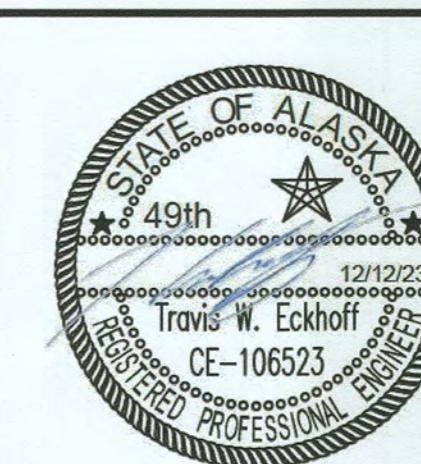


PROJECT LOCATIONS

ABBREVIATIONS	
CL	CENTER LINE
EP	EDGE OF PAVEMENT
WRG	WRANGELL
ZM	ZIMOVIYA HIGHWAY

LEGEND	
DITCH RECONDITIONING	
HAND CLEARING	
SCALING AREAS	
STABILIZATION AREAS (ROCK BOLT)	
PERMIT AREA	
STABILIZATION: ROCK BOLT 25 FT	
STABILIZATION: ROCK BOLT 30 FT	
EDGE OF PAVEMENT	
CENTER LINE	

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE Date 7.2.24



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 WRG ZIMOVIYA HWY ROCK FALL
 MITIGATION HSIP

SHEET INDEX, LEGEND,
 & PROJECT LOCATION

DRAWING LOCATION: G:\w9\SFHWY00308\SV\SOURCE DWGS\BASEMAP\SSOS_SFHWY00308_111622.dwg
 DATE TIME: 12/20/2022 10:48
 LAYOUT: A2
 SCALE: XREFS
 DESIGNED: JIPAPOI
 CHECKED: PEDERSEN
 DRAFTED: JIPAPOI

MONUMENT NOTES:

1. 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.

2. WHETHER LISTED OR NOT, ALL PROPERTY MONUMENTS, PROPERTY MARKERS, CORNERS OR ACCESSORIES WHICH WILL BE DISTURBED OR BURIED SHALL BE REFERENCED PRIOR TO BEING DISTURBED, AND RE-ESTABLISHED IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S.19.10.260) 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.

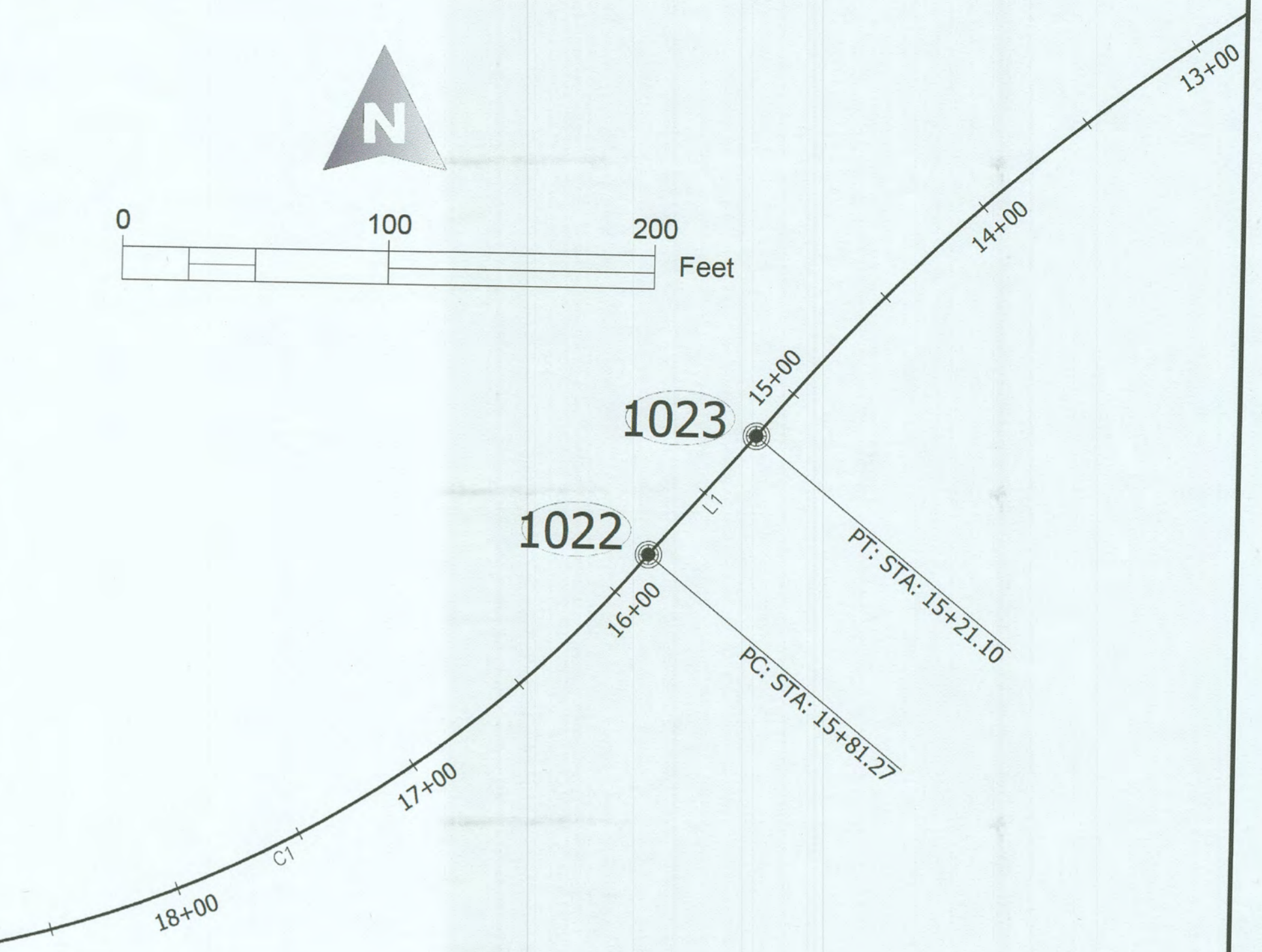
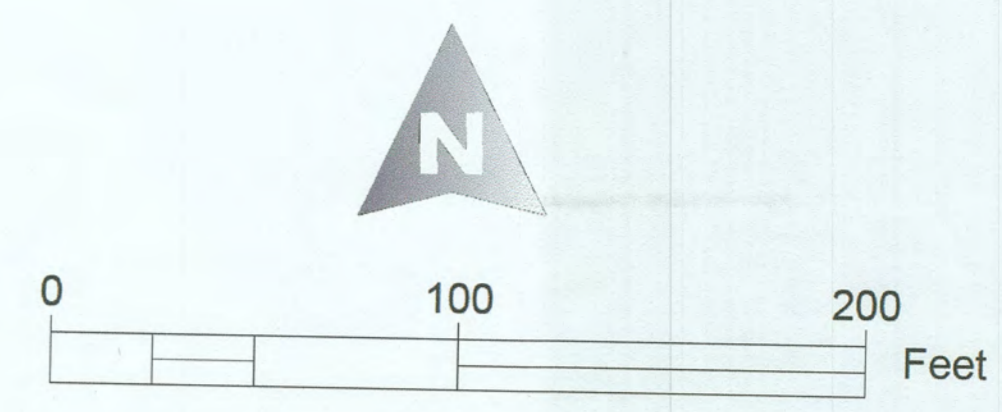
3. WHEN POSSIBLE ALL ORIGINAL PRIMARY MONUMENTS SHALL BE SAVED AND RESET IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S.19.10.260) SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING.

4. RIGHT OF WAY LOCATION IS SHOWN FOR GRAPHICAL ORIENTATION PURPOSES ONLY. REFER TO ALASKA DOT&PF RIGHT OF WAY MAPS FOR RIGHT OF WAY INFORMATION.

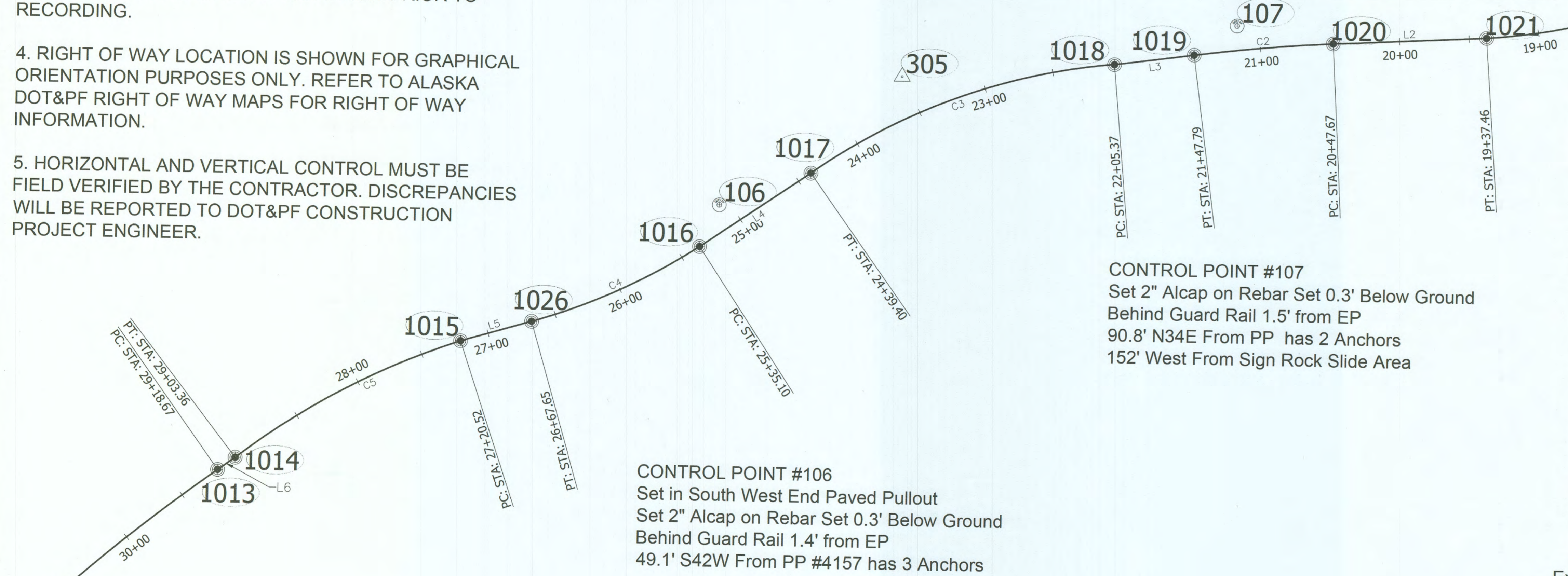
5. HORIZONTAL AND VERTICAL CONTROL MUST BE FIELD VERIFIED BY THE CONTRACTOR. DISCREPANCIES WILL BE REPORTED TO DOT&PF CONSTRUCTION PROJECT ENGINEER.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00308/0003262	2022	SCS1	12

SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	RADIUS	LENGTH	DELTA
L1	15+21.10	1667637.44	2954031.89	60.17	S41° 22' 20"W	15+81.27			
C1	15+81.27	1667592.29	2953992.12			19+37.46	440.74	356.19	46°18'17"
L2	19+37.46	1667432.13	2953684.77	110.21	S86° 42' 36"W	20+47.67			
C2	20+47.67	1667425.80	2953574.74			21+47.79	1319.60	100.12	4°20'50"
L3	21+47.79	1667415.96	2953475.13	57.59	S82° 18' 30"W	22+05.37			
C3	22+05.37	1667408.26	2953418.06			24+39.40	440.74	234.03	30°25'25"
L4	24+39.40	1667326.56	2953201.68	95.70	S55° 27' 37"W	25+35.10			
C4	25+35.10	1667272.30	2953122.85			26+67.65	440.74	132.54	17°13'51"
L5	26+67.65	1667216.26	2953003.29	52.87	S73° 36' 59"W	27+20.52			
C5	27+20.52	1667201.34	2952952.56			29+03.36	545.67	182.84	19°11'55"
L6	29+03.36	1667114.65	2952792.55	15.31	S54° 16' 40"W	29+18.67			
C6	29+18.67	1667105.71	2952780.13			35+66.39	1432.39	647.72	25°54'32"



Point #	Northing	Easting	Description	Station	Offset
1013	1667105.71	2952780.13	BC2.5" DOH	29+18.67	0.00R
1014	1667114.65	2952792.55	BC2.5" DOH	29+03.36	0.00R
1015	1667201.34	2952952.56	BC2.5" DOH	27+20.52	0.00R
1016	1667272.30	2953122.85	IP1" DOH_CAP_MISSING	25+35.10	0.00R
1017	1667326.56	2953201.68	BC2.5" DOH	24+39.40	0.00R
1018	1667408.26	2953418.06	BC2.5" DOH	22+05.37	0.00R
1019	1667415.96	2953475.13	BC2.5" DOH	21+47.79	0.00R
1020	1667425.80	2953574.74	BC2.5" DOH	20+47.67	0.00R
1021	1667432.13	2953684.77	BC2.5" DOH	19+37.46	0.00R
1022	1667592.29	2953992.12	BC2.5" DOH	15+81.27	0.00R
1023	1667637.44	2954031.89	BC2.5" DOH	15+21.10	0.00R
1026	1667216.26	2953003.29	BC2.5" DOH	26+67.65	0.00R



CONTROL POINT #107
 Set 2" Alcap on Rebar Set 0.3' Below Ground Behind Guard Rail 1.5' from EP
 90.8' N34E From PP has 2 Anchors
 152' West From Sign Rock Slide Area

CONTROL POINT #106
 Set in South West End Paved Pullout
 Set 2" Alcap on Rebar Set 0.3' Below Ground Behind Guard Rail 1.4' from EP
 49.1' S42W From PP #4157 has 3 Anchors

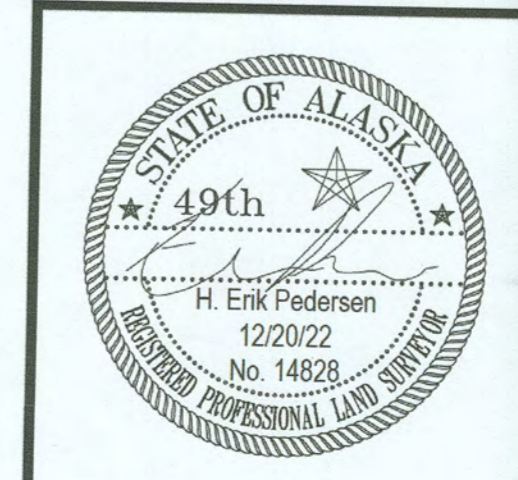
Existing CENTERLINE monuments **SHALL BE PRESERVED IN PLACE.** All centerline monuments in this existing centerline monument table shall be preserved and referenced prior to disturbance and replaced at their original horizontal position. **A RECORD OF MONUMENT FORM IN ACCORDANCE WITH A.S.34.65.040 SHALL BE SUBMITTED TO DOT&PF PROJECT ENGINEER FOR REVIEW PRIOR TO RECORDING FOR EACH MONUMENT.**

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.

HORIZONTAL AND VERTICAL CONTROL STATEMENT:
 COORDINATES LISTED ARE NAD83(2011) ALASKA STATE PLANE COORDINATE SYSTEM ZONE 1 U.S. FEET. ALL BEARINGS AND DISTANCES ARE GRID AND DERIVED FROM TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM. THE VERTICAL DATUM IS NAVD88 DERIVED FROM ELLIPSOIDAL HEIGHTS AND NATIONAL GEODETIC SURVEY GEOID MODEL 12B.

Point #	Northing	Easting	Elevation	Description	Station	Offset
106	1667302.49	2953136.43	55.31	ALCTRL2.5" SET	25+06.80	17.17R
107	1667437.48	2953505.52	50.39	ALCTRL2.5" SET	21+15.18	17.60R
305	1667396.95	2953265.76	54.59	MAG_AERIAL_GCP	23+51.35	28.79R

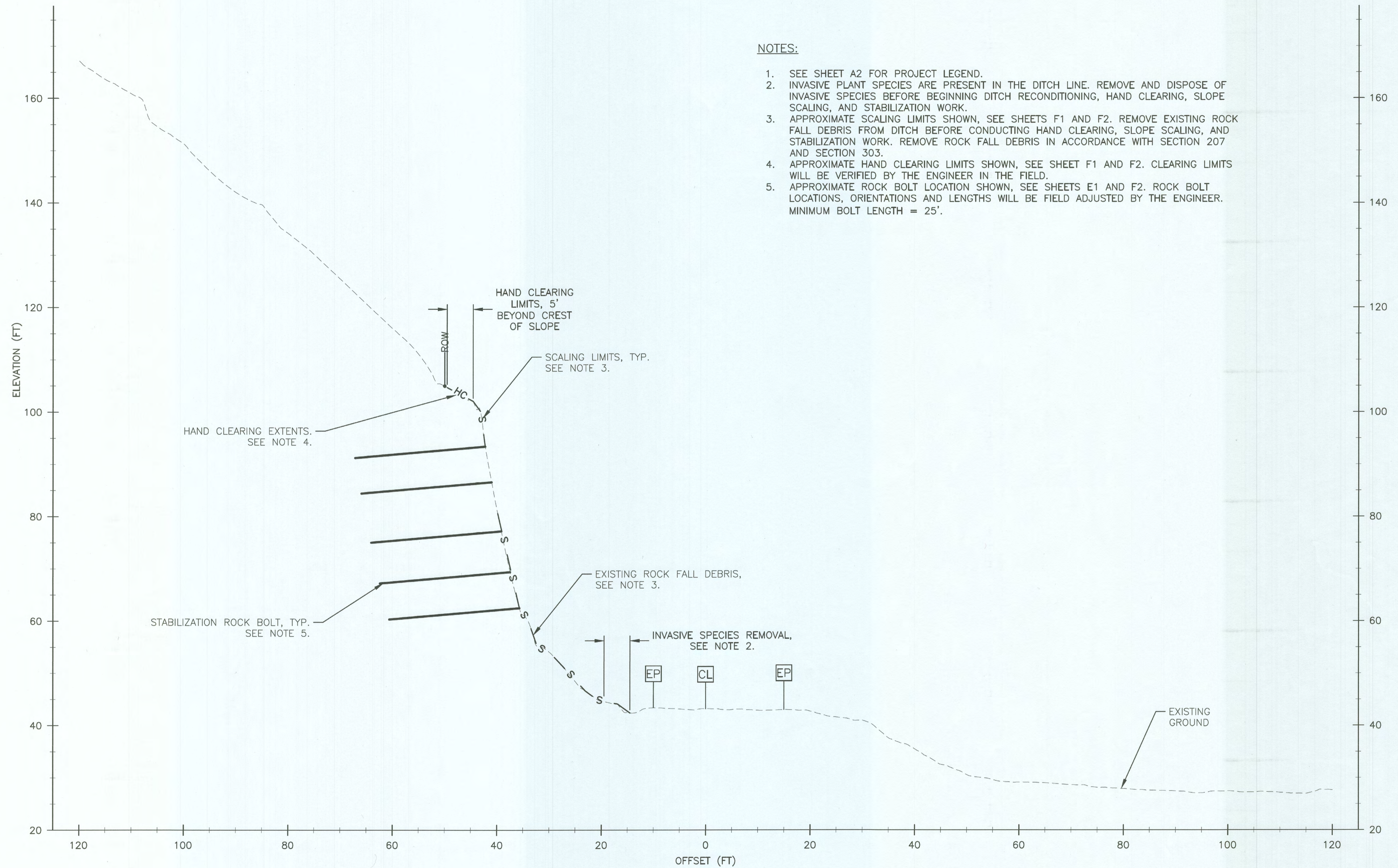
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE [Signature] Date 7.2.24



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 6860 Glacier Highway Juneau Ak. 99801
 (907) 465-1763

**WRG ZIMOVIA HWY ROCK FALL
 MITIGATION HSIP
 SURVEY CONTROL**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHwy00308/0003262	2022	B1	12



NOTES:

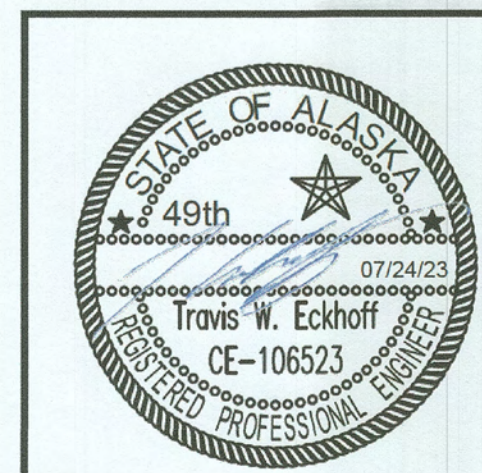
1. SEE SHEET A2 FOR PROJECT LEGEND.
2. INVASIVE PLANT SPECIES ARE PRESENT IN THE DITCH LINE. REMOVE AND DISPOSE OF INVASIVE SPECIES BEFORE BEGINNING DITCH RECONDITIONING, HAND CLEARING, SLOPE SCALING, AND STABILIZATION WORK.
3. APPROXIMATE SCALING LIMITS SHOWN, SEE SHEETS F1 AND F2. REMOVE EXISTING ROCK FALL DEBRIS FROM DITCH BEFORE CONDUCTING HAND CLEARING, SLOPE SCALING, AND STABILIZATION WORK. REMOVE ROCK FALL DEBRIS IN ACCORDANCE WITH SECTION 207 AND SECTION 303.
4. APPROXIMATE HAND CLEARING LIMITS SHOWN, SEE SHEET F1 AND F2. CLEARING LIMITS WILL BE VERIFIED BY THE ENGINEER IN THE FIELD.
5. APPROXIMATE ROCK BOLT LOCATION SHOWN, SEE SHEETS E1 AND F2. ROCK BOLT LOCATIONS, ORIENTATIONS AND LENGTHS WILL BE FIELD ADJUSTED BY THE ENGINEER. MINIMUM BOLT LENGTH = 25'.

FILE Q:\Wrg\SFHwy00308\PlanSet\WRC308_B1.B2_TYPICAL_SECTIONS.dwg
 DATE 7/24/2023 9:52
 LAYOUT B1
 DESIGNED MM, ME, TE
 CHECKED TE
 DRAFTED MU

1
B1

BASIC BID, ZIMOVIYA HIGHWAY SITE: WRG_ZM2
STATION 15+00 TO STATION 16+00
 LATITUDE 56° 23'34"N, LONGITUDE 132° 20'36"W

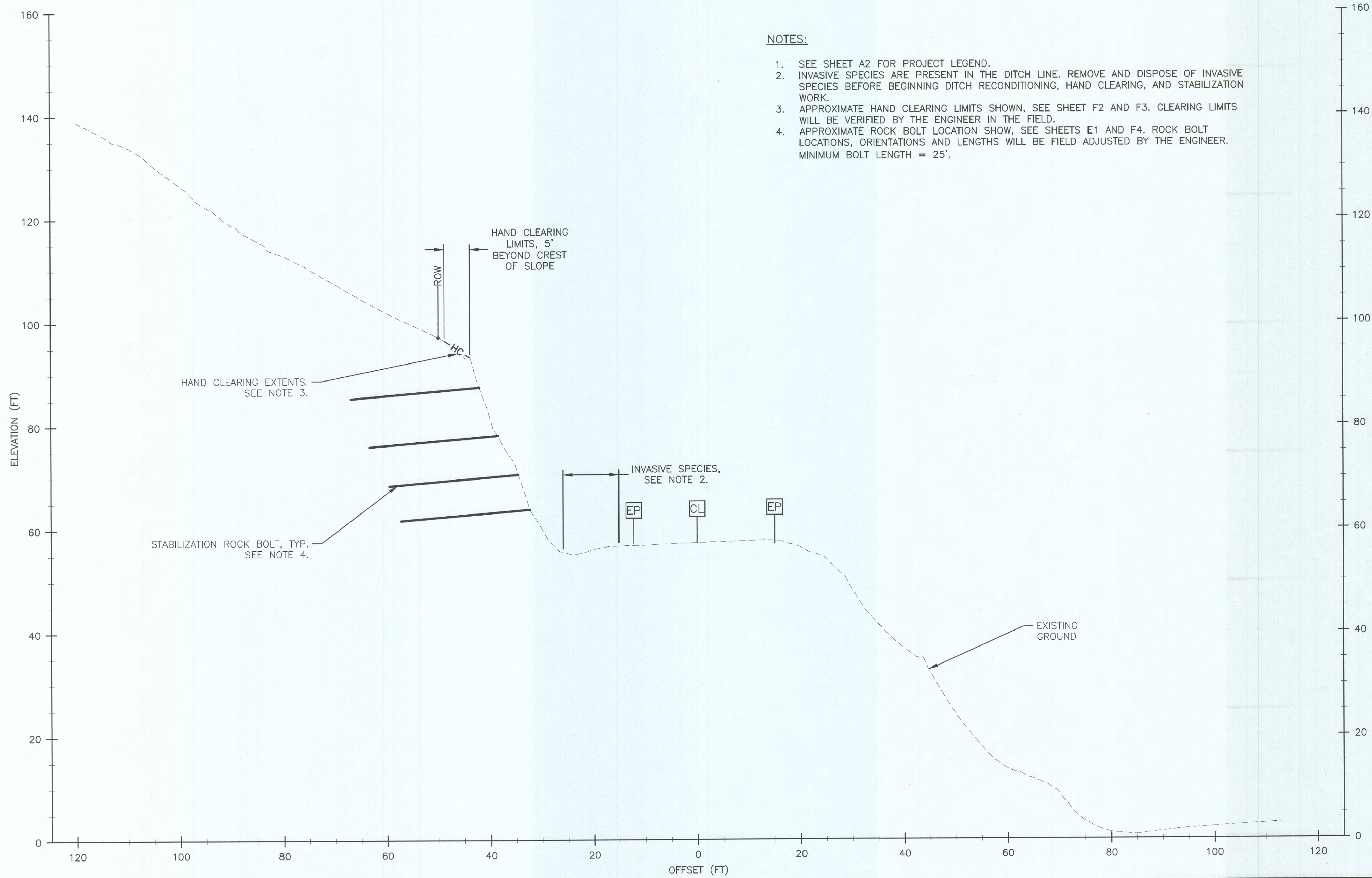
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE *[Signature]* Date 7.2.24



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**WRG ZIMOVIYA HWY ROCK FALL
 MITIGATION HSIP**
 BASIC BID
 SITE: WRG_ZM2
 TYPICAL SECTION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00308/0003262	2022	B2	12

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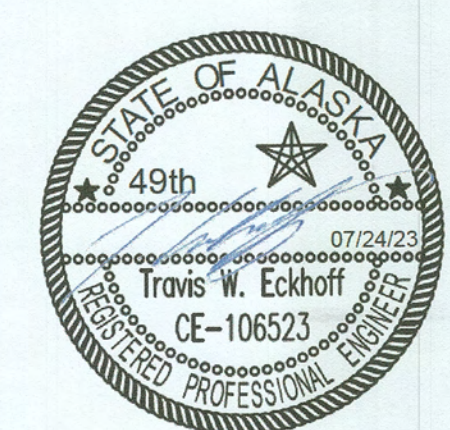
NOTES:

1. SEE SHEET A2 FOR PROJECT LEGEND.
2. INVASIVE SPECIES ARE PRESENT IN THE DITCH LINE. REMOVE AND DISPOSE OF INVASIVE SPECIES BEFORE BEGINNING DITCH RECONDITIONING, HAND CLEARING, AND STABILIZATION WORK.
3. APPROXIMATE HAND CLEARING LIMITS SHOWN, SEE SHEET F2 AND F3. CLEARING LIMITS WILL BE VERIFIED BY THE ENGINEER IN THE FIELD.
4. APPROXIMATE ROCK BOLT LOCATION SHOWN, SEE SHEETS E1 AND F4. ROCK BOLT LOCATIONS, ORIENTATIONS AND LENGTHS WILL BE FIELD ADJUSTED BY THE ENGINEER. MINIMUM BOLT LENGTH = 25'.

1
B1

ADD. ALT. 1, ZIMOVIYA HIGHWAY SITE: WRC_ZM3
 STATION 27+35 TO STATION 28+35
 LATITUDE 56° 23'30"N, LONGITUDE 132° 20'56"W

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE [Signature] Date 7.2.24



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 WRC ZIMOVIYA HWY ROCK FALL
 MITIGATION HSIP
 ADDITIVE ALTERNATIVE 1
 SITE: WRC_ZM3
 TYPICAL SECTION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFHWHY00308	2022	C1	12

ESTIMATE OF QUANTITIES - BASIC BID

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0010.0000	HAND CLEARING	LS	ALL REQ'D
201.2001.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL, Deleted by CO 1	SY	111 0
203.2033.0000	STABILIZATION - ROCK BOLTS	LF	310
203.2050.0000	ROCKFALL MITIGATION, SLOPE SCALING	HR	40 57
303.2003.0000	DITCH RECONDITIONING	LF	200 120
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
643.0002.0000	TRAFFIC MAINTENANCE	CS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
658.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL WITHOUT CGP COVERAGE	LS	ALL REQ'D
658.0002.0000	ESCP CHANGES BY DIRECTIVE	CS	ALL REQ'D

203.2050.0000 ROCKFALL MITIGATION, SLOPE SCALING (HR)				
BID	SHEET	SITE	TOTAL HOURS (HR)	NOTES
BASIC	F1-F2	WRG_ZM2	40 53	
ADD. ALT. 1	F3-F4	WRG_ZM3	4	

ESTIMATE OF QUANTITIES - ADD. ALT. 1

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0010.0000	HAND CLEARING	LS	ALL REQ'D
201.2001.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL, Deleted by CO 1	SY	77 77
203.2033.0000	STABILIZATION - ROCK BOLTS	LF	275
303.2003.0000	DITCH RECONDITIONING	LF	70
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
643.0002.0000	TRAFFIC MAINTENANCE	CS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
658.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL WITHOUT CGP COVERAGE	LS	ALL REQ'D
658.0002.0000	ESCP CHANGES BY DIRECTIVE	CS	ALL REQ'D

ITEM NO.	ITEM DESCRIPTIONS	PAY UNIT	TOTAL QUANTITY	REMARKS
201.0010.0000	HAND CLEARING - ADDITIONAL, CO 2	LS	ALL REQ'D	BASIC BID
698.2000.0000	Negotiated Adjustment - eliminated item 201.2001.0000 Reimbursement, CO 1	LS	ALL REQ'D	BASIC BID
698.2000.0000	Negotiated Adjustment - eliminated item 201.2001.0000 Reimbursement, CO 1	LS	ALL REQ'D	ADD ALT 1

201.0010.0000 HAND CLEARING (LS)

BID	SHEET	SITE	BEGIN STATION, OFFSET	END STATION, OFFSET	APPROXIMATE SLOPE AREA (SF)
BASIC	F1-F2	WRG_ZM2	15+21, 49' LT	15+83, 49' LT	3,600 4,120
ADD. ALT. 1	F3-F4	WRG_ZM3	27+50, 49' LT	28+20, 49' LT	2,750 1,750

~~201.2001.0000 INVASIVE PLANT SPECIES, CONTROL, REMOVAL, AND DISPOSAL (SY)~~

BID	SHEET	SITE	BEGIN STATION, OFFSET	END STATION, OFFSET	LENGTH (LF)	WIDTH (FT)	SPECIES PRESENT
BASIC	F1-F2	WRG_ZM2	15+00, 14' LT	16+00, 14' LT	100	10	REED CANARYGRASS
ADD. ALT. 1	F3-F4	WRG_ZM3	27+50, 14' LT	28+20, 14' LT	70	10	REED CANARYGRASS

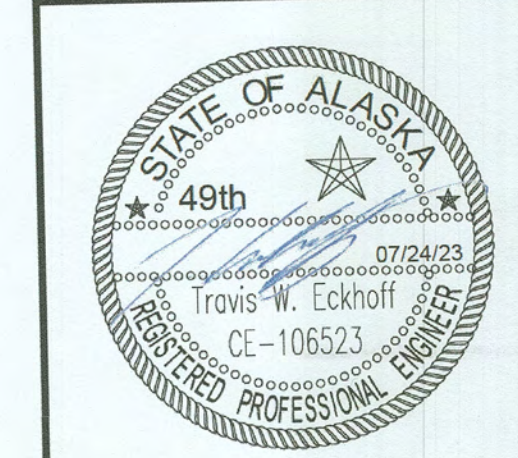
203.2033.0000 STABILIZATION - ROCK BOLT (LF)

BID	SHEET	SITE	TOTAL LENGTH (LF)	NOTES
BASIC	F1-F2	WRG_ZM2	310	
ADD. ALT. 1	F3-F4	WRG_ZM3	275	

303.2003.0000 DITCH RECONDITIONING (LF)

BID	SHEET	SITE	BEGIN STATION, OFFSET	END STATION, OFFSET	LENGTH (LF)	NOTES
BASIC	F1-F2	WRG_ZM2	15+00, LT	16+00, LT	200 120	INCLUDES DEBRIS REMOVAL BEFORE AND AFTER HAND CLEARING, SCALING, AND STABILIZATION WORK
ADD. ALT. 1	F3-F4	WRG_ZM3	27+50, LT	28+20, LT	70 90	

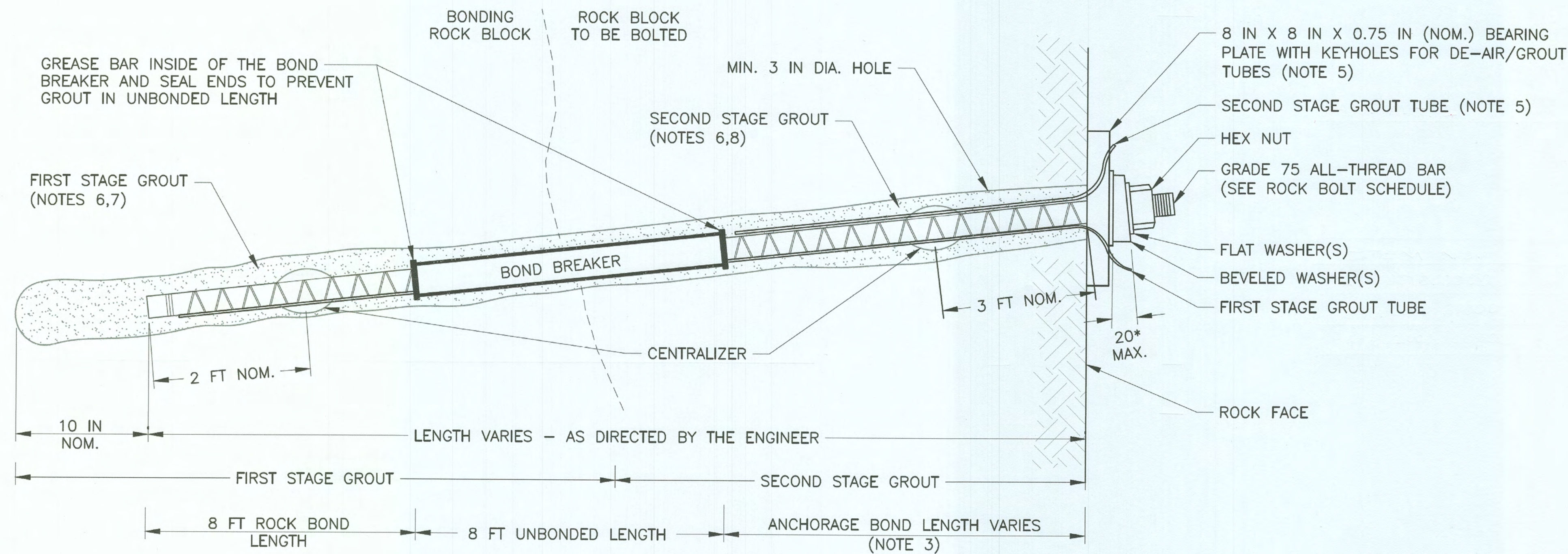
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE [Signature] Date 6.21.24



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 WRG ZIMOVIA HWY ROCK FALL MITIGATION HSIP
 ESTIMATE OF QUANTITIES & SUMMARY TABLES

FILE: Q:\Wrg\SFHWHY00308\Planset\WRG308_C1_QUANTITIES.dwg
 DATE: 7/24/2023 9:59 AM
 LAYOUT: C1
 DESIGNED: MM, ME, TE
 CHECKED: TE
 DRAFTED: WU

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFHWHY00308	2022	E1	12



NOTES:

1. INSTALL ROCK BOLTS AT THE LOCATIONS, ORIENTATIONS, AND LENGTHS AS DETERMINED BY THE ENGINEER IN THE FIELD. APPROXIMATE BOLT LOCATIONS SHOWN ON SHEETS F1 THROUGH F4. LOCATIONS TO BE CONFIRMED AFTER SCALING IS COMPLETE.
2. BOND LENGTH REQUIRES MINIMUM 3 INCH HOLE DIAMETER. CONTRACTOR IS RESPONSIBLE FOR MODIFYING BOND LENGTHS TO SUIT THEIR SELECTED DRILLING TECHNIQUE AND HOLE DIAMETER.
3. MINIMUM ANCHORAGE LENGTH IS 8 FEET AND MINIMUM TOTAL BOLT LENGTH IS 25 FEET.
4. USE BARS CAPABLE OF BEING COUPLED TO ALLOW ADJUSTMENT TO LENGTH, IF NECESSARY.
5. ORIENT ONE KEYHOLE ON THE BEARING PLATE UPWARD FOR MAXIMUM GROUT RETENTION DURING SECOND STAGE GROUTING.
6. INSTALL ROCK BOLTS WITH GROUT SOCKS TO MITIGATE GROUT LOSS. WATER-FILLED HOLES SHOULD BE ANTICIPATED.
7. FIRST STAGE GROUT TO FILL BOND LENGTH AND HALF OF UNBONDED LENGTH.
8. SECOND STAGE GROUT ROCK BOLT FOLLOWING SUCCESSFUL TESTING AND LOCK-OFF.


1
E1 **ROCK BOLT DETAIL**
NOT TO SCALE

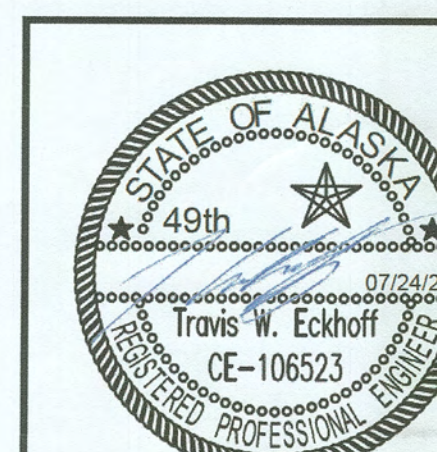
ROCK BOLT SCHEDULE

GRADE	BAR SIZE	BOND LENGTH	UNBONDED LENGTH	ANCHORAGE LENGTH	TEST LOAD	LOCK-OFF LOAD
75	#8	8 FEET	8 FEET	VARIES	48 KIPS	40 KIPS

LOAD TESTING CYCLE (ALL ROCK BOLTS)

STEP	LOAD (KIPS)	PROCEDURES
1	-	CHECK FIRST STAGE GROUT LEVEL BEFORE LOAD TESTING, SUPPLEMENT GROUTING AS NECESSARY
2	48	TENSION BOLT TO TEST LOAD, HOLD FOR 10 MINUTES, MONITOR TENSION
3	40	REDUCE TENSION TO LOCK-OFF LOAD, TIGHTEN BOLT HARDWARE OBSERVING REDUCTION IN TENSION, RELEASE JACK PRESSURE
4	42	PERFORM LIFT-OFF TEST, OBSERVE BOLT HARDWARE RELAXATION AT > 40 KIPS, RETIGHTEN BOLT HARDWARE, RELEASE JACK PRESSURE

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PE  Date 7.2.24



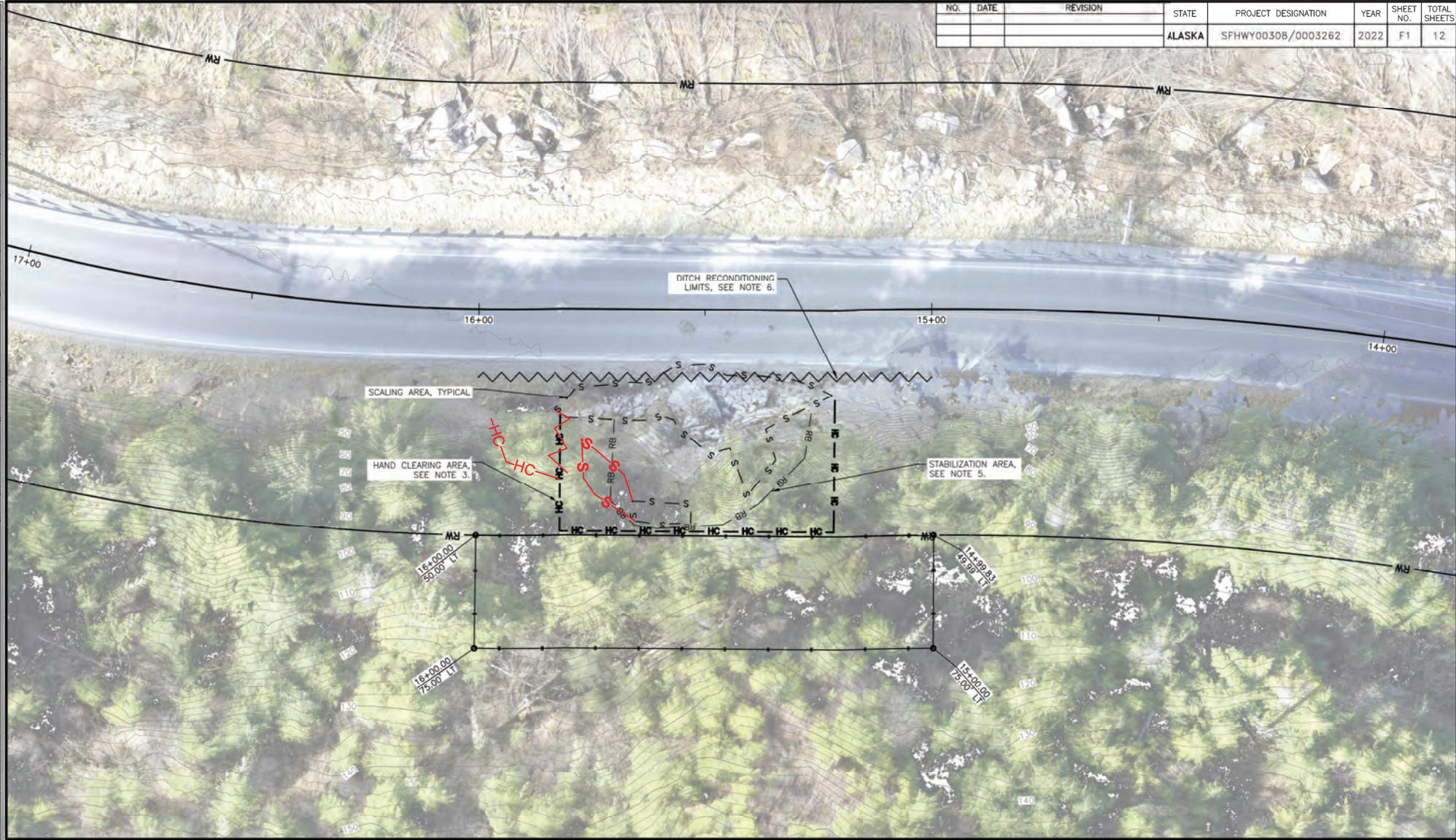
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
WRG ZIMOVIA HWY ROCK FALL
MITIGATION HSIP

DETAILS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHXY00308/0003262	2022	F1	12

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 DESIGNED: IWE | CHECKED: IE | DRAFTED: IWE



NOTES:

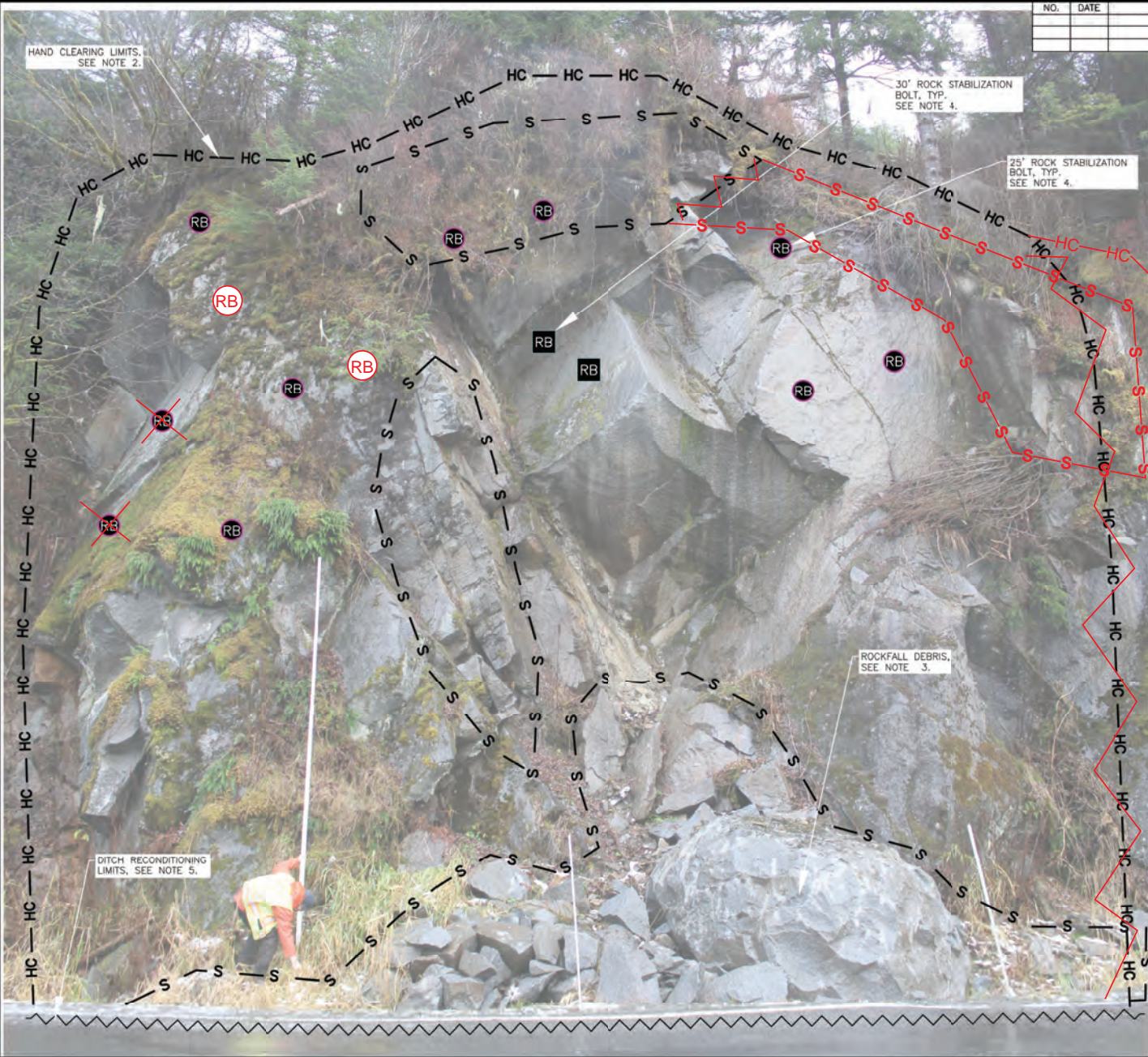
1. SEE SHEET A2 FOR PROJECT LEGEND.
2. STATIONING IS APPROXIMATE.
3. APPROXIMATE HAND CLEARING LIMITS SHOWN, SEE SHEET F2.
4. SCALE AND REMOVE ROCKFALL DEBRIS FROM AREAS SHOWN. LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS. SEE SHEET F2.
5. APPROXIMATE LIMITS OF STABILIZATION WITH ROCK BOLTS. SEE SHEETS E1 AND F2.
6. APPROXIMATE DITCH RECONDITIONING LIMITS SHOWN, LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.



STATE OF ALASKA
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**WRG ZIMOVI HWY ROCK FALL
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 WRG_ZM2 SITE PLAN

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFWY00308/0003262	2022	F2	12



NOTES:

1. SEE SHEET A2 FOR PROJECT LEGEND.
2. APPROXIMATE HAND CLEARING LIMITS SHOWN, LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.
3. SCALE AND REMOVE ROCKFALL DEBRIS FROM AREAS SHOWN. LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.
4. APPROXIMATE ROCK BOLT LOCATIONS, ORIENTATIONS, AND LENGTH SHOWN AND MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION BASED ON SCALING RESULTS AND ENCOUNTERED SUBSURFACE CONDITIONS. SEE SHEET E1 FOR ROCK BOLT DETAILS.
5. APPROXIMATE DITCH RECONDITIONING LIMITS SHOWN, LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.



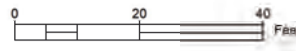
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**WRG ZIMOVIA HWY ROCK FALL
 MITIGATION HSIP**
 WRG_ZM2 MITIGATION ANNOTATED
 PHOTOGRAPH

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH000308/0003262	2022	F3	12



- NOTES:**
- SEE SHEET A2 FOR PROJECT LEGEND.
 - STATIONING IS APPROXIMATE.
 - APPROXIMATE HAND CLEARING LIMITS SHOWN, SEE SHEET F4.
 - APPROXIMATE LIMITS OF STABILIZATION WITH ROCK BOLTS, SEE SHEETS E1 AND F4
 - APPROXIMATE DITCH RECONDITIONING LIMITS SHOWN, LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.



STATE OF ALASKA
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 WRG ZIMOVIYA HWY ROCK FALL
 MITIGATION HSIP

ADDITIVE ALTERNATIVE 1
 WRG_ZM3 SITE PLAN

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFHWY00308	2022	F4	12



ROCK STABILIZATION BOLT, TYP.
SEE NOTE 3.

HAND CLEARING LIMITS,
SEE NOTE 2.

DITCH RECONDITIONING
LIMITS, SEE NOTE 4.

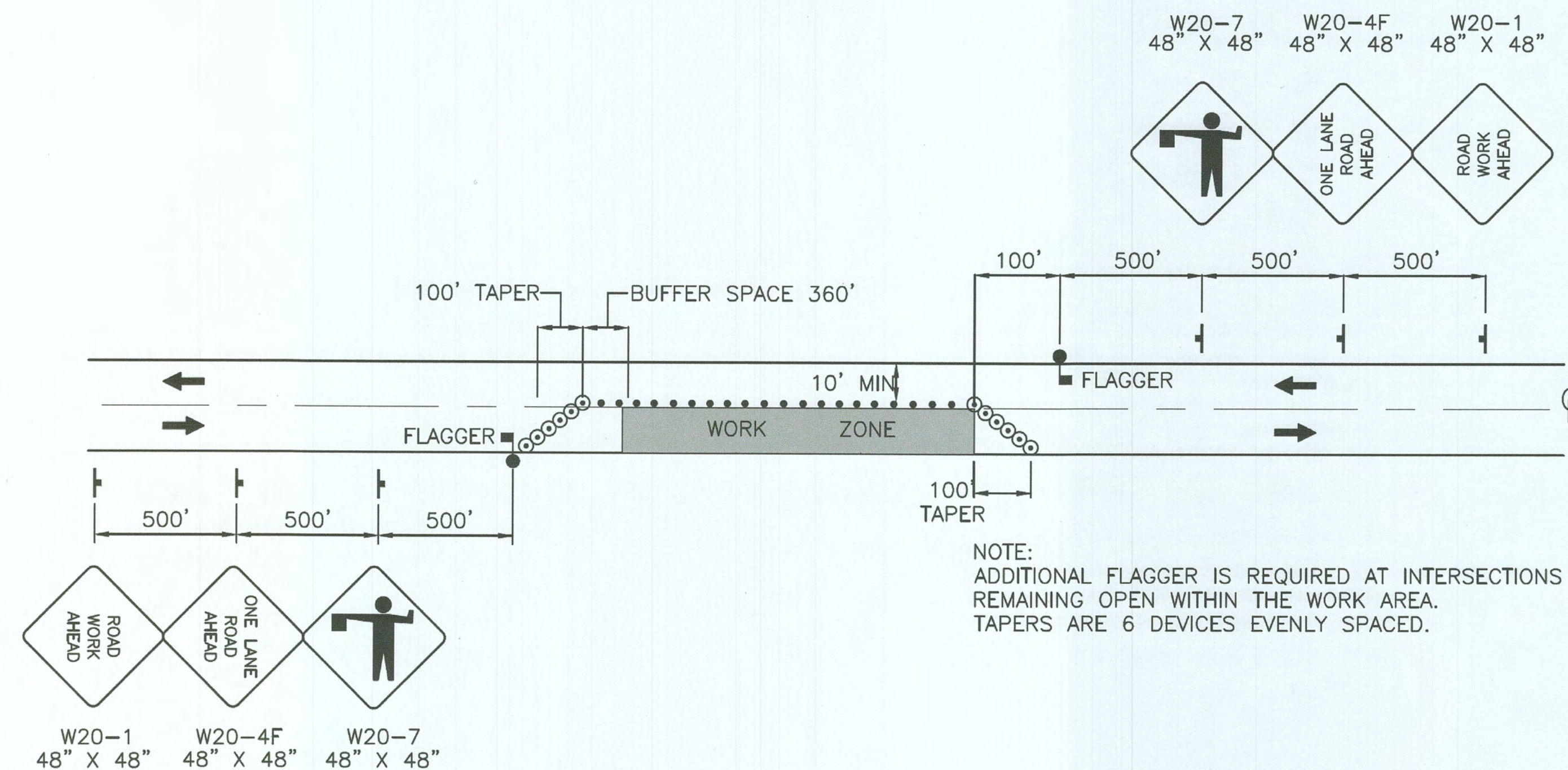
NOTES:

1. SEE SHEET A2 FOR PROJECT LEGEND.
2. APPROXIMATE HAND CLEARING LIMITS SHOWN. LIMITS MAY BE ADJUSTED BY THE ENGINEER AS THE WORK PROCEEDS.
3. APPROXIMATE ROCK BOLT LOCATIONS, ORIENTATIONS, AND LENGTHS SHOWN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION BASED ON SCALING RESULTS AND ENCOUNTERED SUBSURFACE CONDITIONS. SEE SHEET E1 FOR ROCK BOLT DETAILS.
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STATE OF ALASKA
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MITIGATION HSIP
ADDITIVE ALTERNATIVE 1
WRG_ZM3 MITIGATION ANNOTATED
PHOTOGRAPH**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003262/SFHWHY00308	2022	T1	12



TWO LANE ROADWAY-SINGLE LANE CLOSURE

TRAFFIC CONTROL NOTES:

1. VERTICAL EDGES GREATER THAN 2" ARE NOT ALLOWED DURING NON-WORKING HOURS. LIMIT SHOULDER EXCAVATION TO AN AREA THAT CAN BE COMPLETELY BACKFILLED BY END OF WORK SHIFT.
2. MINIMUM OF ONE LANE SHALL REMAIN OPEN AT ALL TIMES IN WORK AREAS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
4. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
5. TRAFFIC CONTROL 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 (TCP) 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. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE DETAILS FROM THESE SHEETS.
7. ALL TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR SHALL BE NUMBERED. ALL TRAFFIC CONTROL PLANS THAT USE A TYPICAL APPLICATION AS DESCRIBED IN THE MUTCD SHALL REFERENCE THE TYPICAL APPLICATION. EXAMPLE: TCP 3, MUTCD TA-10.

LEGEND	
	FLAGGER
	CONE
	CONSTRUCTION SIGN
	DRUMS

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
 PE Date 7.2.24

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 WRG ZIMOVIA HWY ROCK FALL
 MITIGATION HSIP

TRAFFIC CONTROL

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